⚙ Custom View Settings

Topic 1 - Question Set 1

Question #1 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Subscription named Sub1.
You have an Azure Storage account named Sa1 in a resource group named RG1.
Users and applications access the blob service and the file service in Sa1 by using several shared access signatures (SASs) and stored access policies.
You discover that unauthorized users accessed both the file service and the blob service.
You need to revoke all access to Sa1.
Solution: You generate new SASs.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
Instead you should create a new stored access policy.
To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately affects all of the shared access signatures associated with it.
References:
https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

Question #2 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Subscription named Sub1.
You have an Azure Storage account named Sa1 in a resource group named RG1.
Users and applications access the blob service and the file service in Sa1 by using several shared access signatures (SASs) and stored access policies.
You discover that unauthorized users accessed both the file service and the blob service.
You need to revoke all access to Sa1.
Solution: You create a new stored access policy.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *A*
To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately effects all of the shared access signatures associated with it.
References:
https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

Question #3 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a hybrid configuration of Azure Active Directory (Azure AD).
You have an Azure HDInsight cluster on a virtual network.
You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.
You need to configure the environment to support the planned authentication.
Solution: You deploy the On-premises data gateway to the on-premises network.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
Instead, you connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.
Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions:
➾ Create Azure Virtual Network.
➾ Create a custom DNS server in the Azure Virtual Network.
➾ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
➾ Configure forwarding between the custom DNS server and your on-premises DNS server.
References:
https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

Question #4

Topic 1

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a hybrid configuration of Azure Active Directory (Azure AD).
You have an Azure HDInsight cluster on a virtual network.
You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.
You need to configure the environment to support the planned authentication.
Solution: You create a site-to-site VPN between the virtual network and the on-premises network.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *A*
You can connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.
Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions:
✑ Create Azure Virtual Network.
✑ Create a custom DNS server in the Azure Virtual Network.
✑ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
✑ Configure forwarding between the custom DNS server and your on-premises DNS server.
References:
https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

Question #5

Topic 1

Your network contains an Active Directory forest named contoso.com. The forest contains a single domain.
You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.
You plan to deploy Azure AD Connect and to integrate Active Directory and the Azure AD tenant.
You need to recommend an integration solution that meets the following requirements:
⊸ Ensures that password policies and user logon restrictions apply to user accounts that are synced to the tenant
Minimizes the number of servers required for the solution.

▪

Which authentication method should you include in the recommendation?

A. federated identity with Active Directory Federation Services (AD FS)

B. password hash synchronization with seamless single sign-on (SSO)

C. pass-through authentication with seamless single sign-on (SSO)

Correct Answer: *B*
Password hash synchronization requires the least effort regarding deployment, maintenance, and infrastructure. This level of effort typically applies to organizations that only need their users to sign in to Office 365, SaaS apps, and other Azure AD-based resources. When turned on, password hash synchronization is part of the Azure AD Connect sync process and runs every two minutes.
Incorrect Answers:
A: A federated authentication system relies on an external trusted system to authenticate users. Some companies want to reuse their existing federated system investment with their Azure AD hybrid identity solution. The maintenance and management of the federated system falls outside the control of Azure AD. It's up to the organization by using the federated system to make sure it's deployed securely and can handle the authentication load.
C: For pass-through authentication, you need one or more (we recommend three) lightweight agents installed on existing servers. These agents must have access to your on-premises Active Directory Domain Services, including your on-premises AD domain controllers. They need outbound access to the Internet and access to your domain controllers. For this reason, it's not supported to deploy the agents in a perimeter network.
Pass-through Authentication requires unconstrained network access to domain controllers. All network traffic is encrypted and limited to authentication requests.
References:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-pta

Question #6 *Topic 1*

Your network contains an on-premises Active Directory domain named corp.contoso.com.

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You sync all on-premises identities to Azure AD.

You need to prevent users who have a givenName attribute that starts with TEST from being synced to Azure AD. The solution must minimize administrative effort.

What should you use?

A. Synchronization Rules Editor

B. Web Service Configuration Tool

C. the Azure AD Connect wizard

D. Active Directory Users and Computers

Correct Answer: *A*

Use the Synchronization Rules Editor and write attribute-based filtering rule.

References:

https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-change-the-configuration

Question #7

Topic 1

DRAG DROP -

You are implementing conditional access policies.

You must evaluate the existing Azure Active Directory (Azure AD) risk events and risk levels to configure and implement the policies.

You need to identify the risk level of the following risk events:

➾ Users with leaked credentials

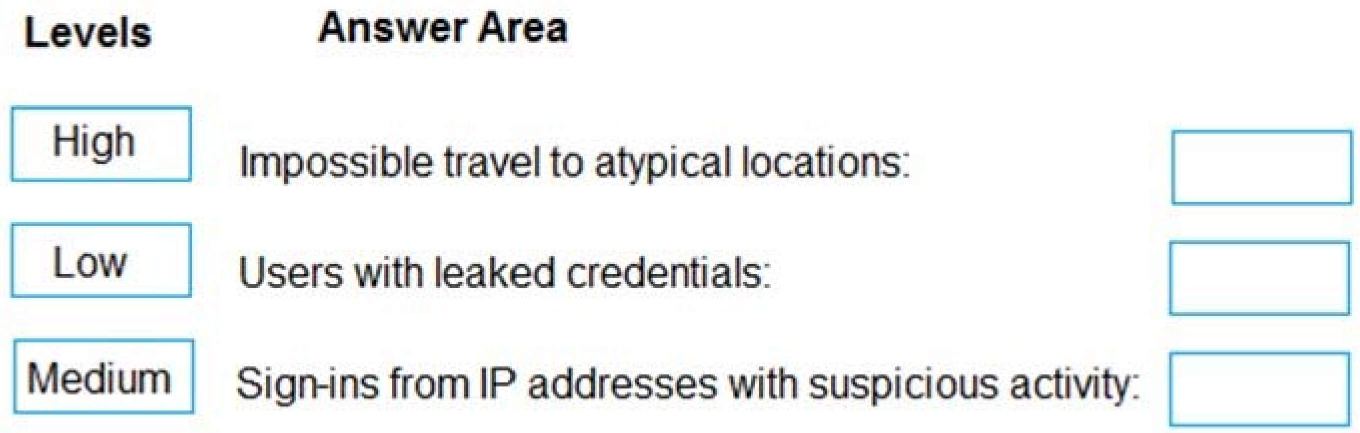
➾ Impossible travel to atypical locations

➾ Sign-ins from IP addresses with suspicious activity

Which level should you identify for each risk event? To answer, drag the appropriate levels to the correct risk events. Each level may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Levels

High

Low

Medium

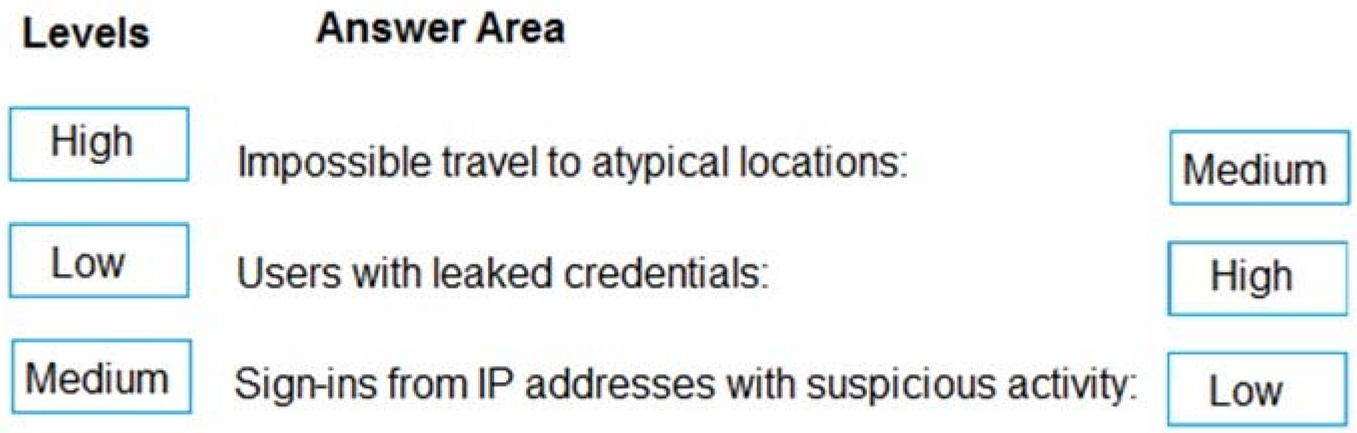
Answer Area

Impossible travel to atypical locations:

Users with leaked credentials:

Sign-ins from IP addresses with suspicious activity:

Correct Answer:



Levels

High

Low

Medium

Answer Area

Impossible travel to atypical locations: Medium

Users with leaked credentials: High

Sign-ins from IP addresses with suspicious activity: Low

Azure AD Identity protection can detect six types of suspicious sign-in activities:

➾ Users with leaked credentials

➾ Sign-ins from anonymous IP addresses

➾ Impossible travel to atypical locations

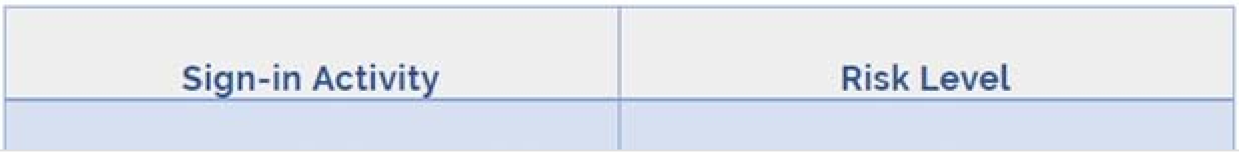
➾ Sign-ins from infected devices

Sign-ins from IP addresses with suspicious activity

▪

➾ Sign-ins from unfamiliar locations

These six types of events are categorized in to 3 levels of risks "" High, Medium & Low:



Sign-in Activity	Risk Level

Question #8

Topic 1

HOTSPOT -

You create and enforce an Azure AD Identity Protection user risk policy that has the following settings:

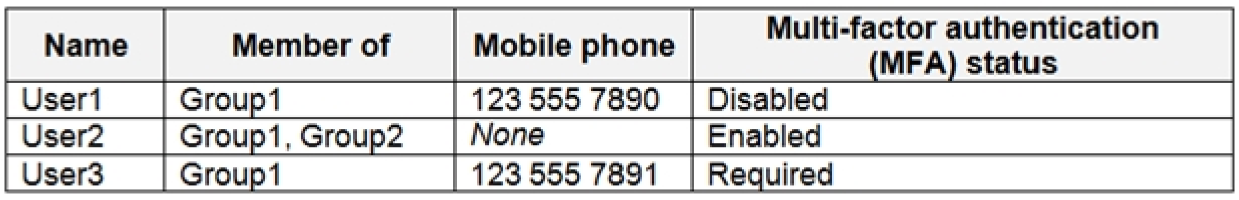
➾ Assignment: Include Group1, Exclude Group2

➾ Conditions: Sign-in risk of Medium and above

Access: Allow access, Require password change

▪

You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains the users shown in the following table.



Name	Member of	Mobile phone	Multi-factor authentication (MFA) status
User1	Group1	123 555 7890	Disabled
User2	Group1, Group2	*None*	Enabled
User3	Group1	123 555 7891	Required

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answer: *Explanation*

Box 1: Yes -

User1 is member of Group1. Sign in from unfamiliar location is risk level Medium.

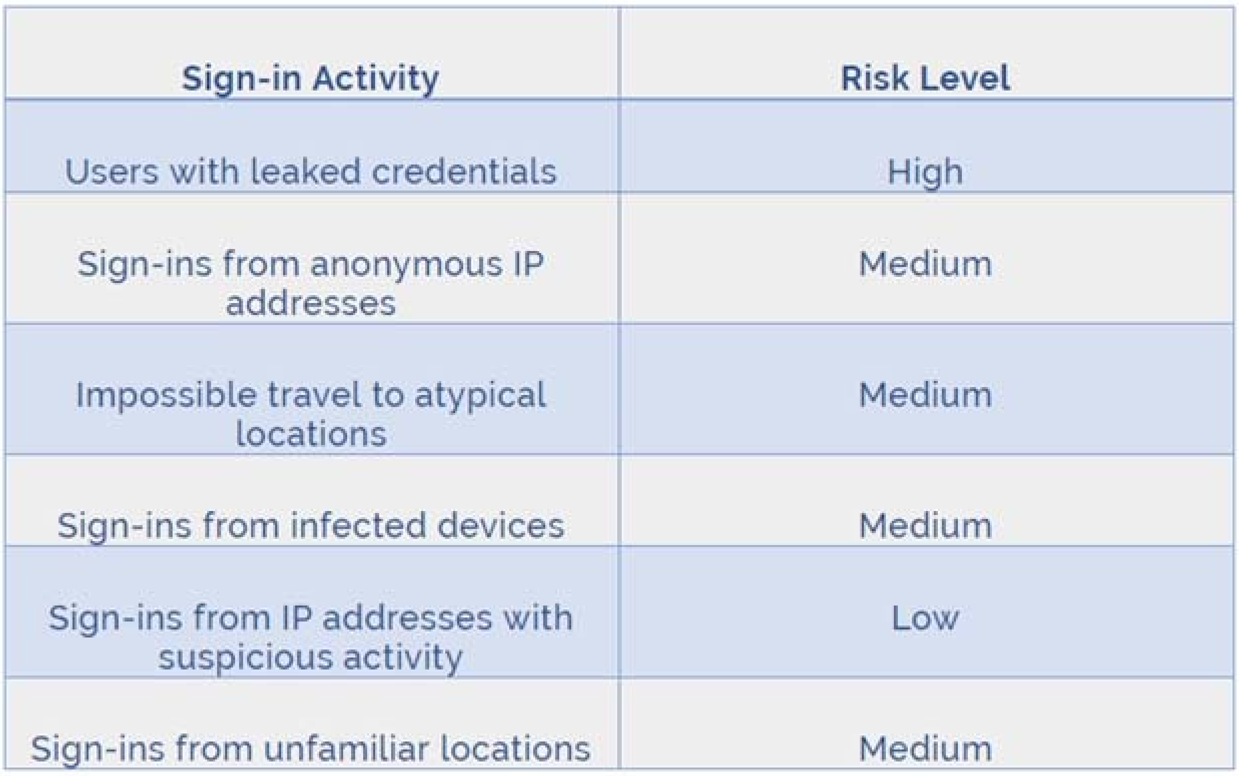
Box 2: Yes -

User2 is member of Group1. Sign in from anonymous IP address is risk level Medium.

Box 3: No -

Sign-ins from IP addresses with suspicious activity is low.

Note:



Sign-in Activity	Risk Level
Users with leaked credentials	High
Sign-ins from anonymous IP addresses	Medium
Impossible travel to atypical locations	Medium
Sign-ins from infected devices	Medium
Sign-ins from IP addresses with suspicious activity	Low
Sign-ins from unfamiliar locations	Medium

Azure AD Identity protection can detect six types of suspicious sign-in activities:

➾ Users with leaked credentials

➾ Sign-ins from anonymous IP addresses

➾ Impossible travel to atypical locations

➾ Sign-ins from infected devices

➾ Sign-ins from IP addresses with suspicious activity

➾ Sign-ins from unfamiliar locations

These six types of events are categorized in to 3 levels of risks "" High, Medium & Low:

References:

http://www.rebeladmin.com/2018/09/step-step-guide-configure-risk-based-azure-conditional-access-policies/

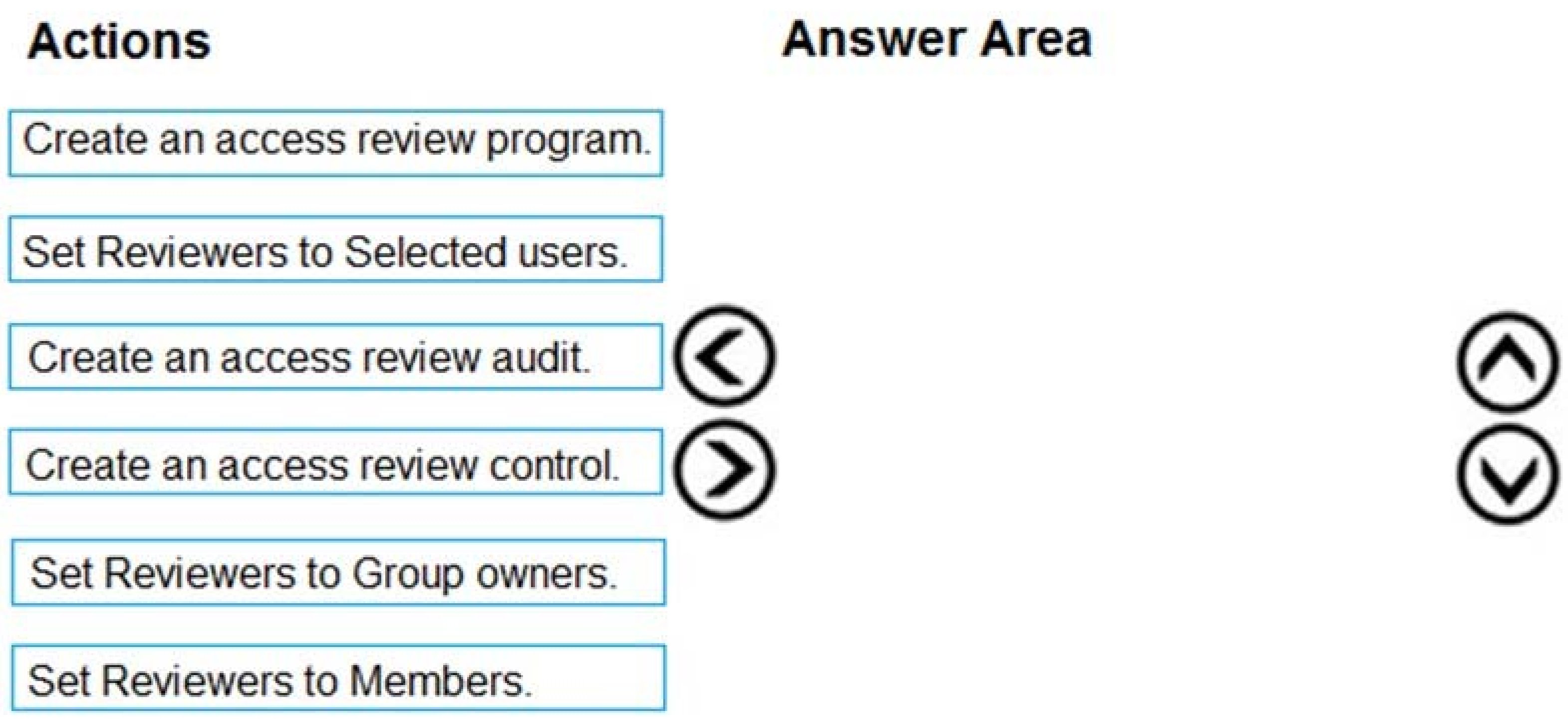
Question #9 *Topic 1*

DRAG DROP -

You need to configure an access review. The review will be assigned to a new collection of reviews and reviewed by resource owners.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

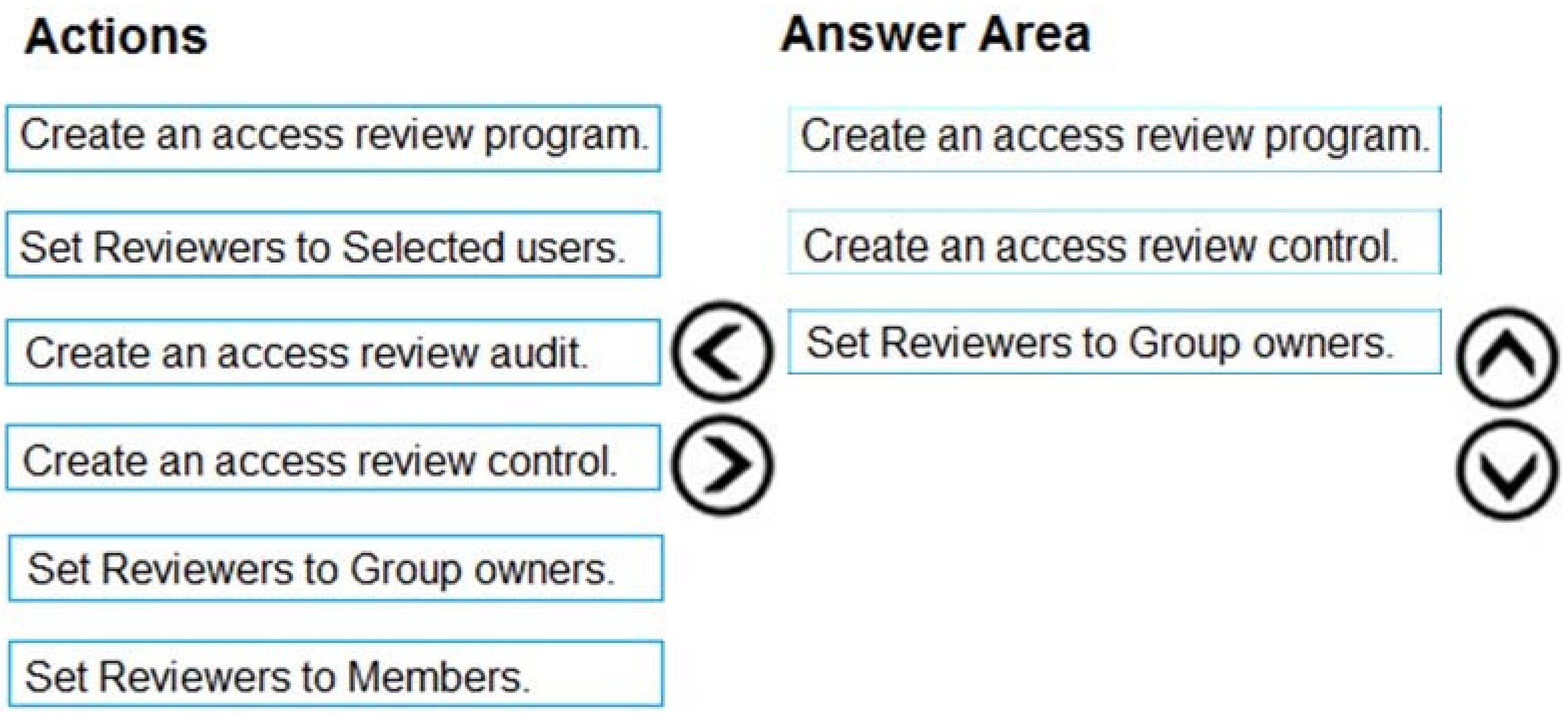


Actions

- Create an access review program.
- Set Reviewers to Selected users.
- Create an access review audit.
- Create an access review control.
- Set Reviewers to Group owners.
- Set Reviewers to Members.

Answer Area

Correct Answer:



Actions

- Create an access review program.
- Set Reviewers to Selected users.
- Create an access review audit.
- Create an access review control.
- Set Reviewers to Group owners.
- Set Reviewers to Members.

Answer Area

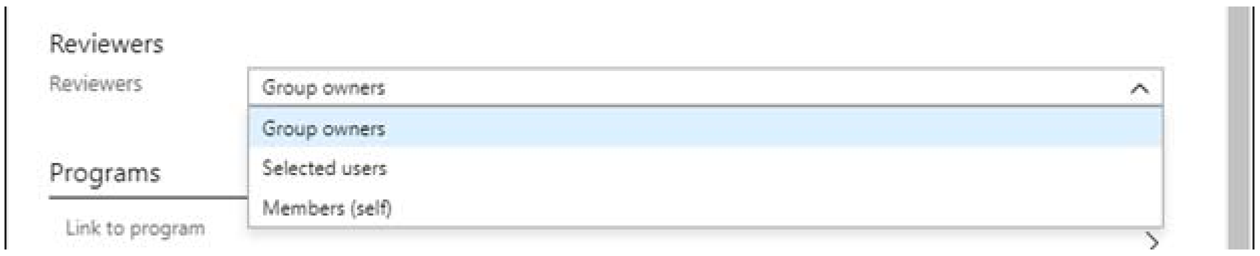
- Create an access review program.
- Create an access review control.
- Set Reviewers to Group owners.

Step 1: Create an access review program

Step 2: Create an access review control

Step 3: Set Reviewers to Group owners

In the Reviewers section, select either one or more people to review all the users in scope. Or you can select to have the members review their own access. If the resource is a group, you can ask the group owners to review.



Reviewers

Reviewers: Group owners

- Group owners
- Selected users
- Members (self)

Programs

Link to program

References:

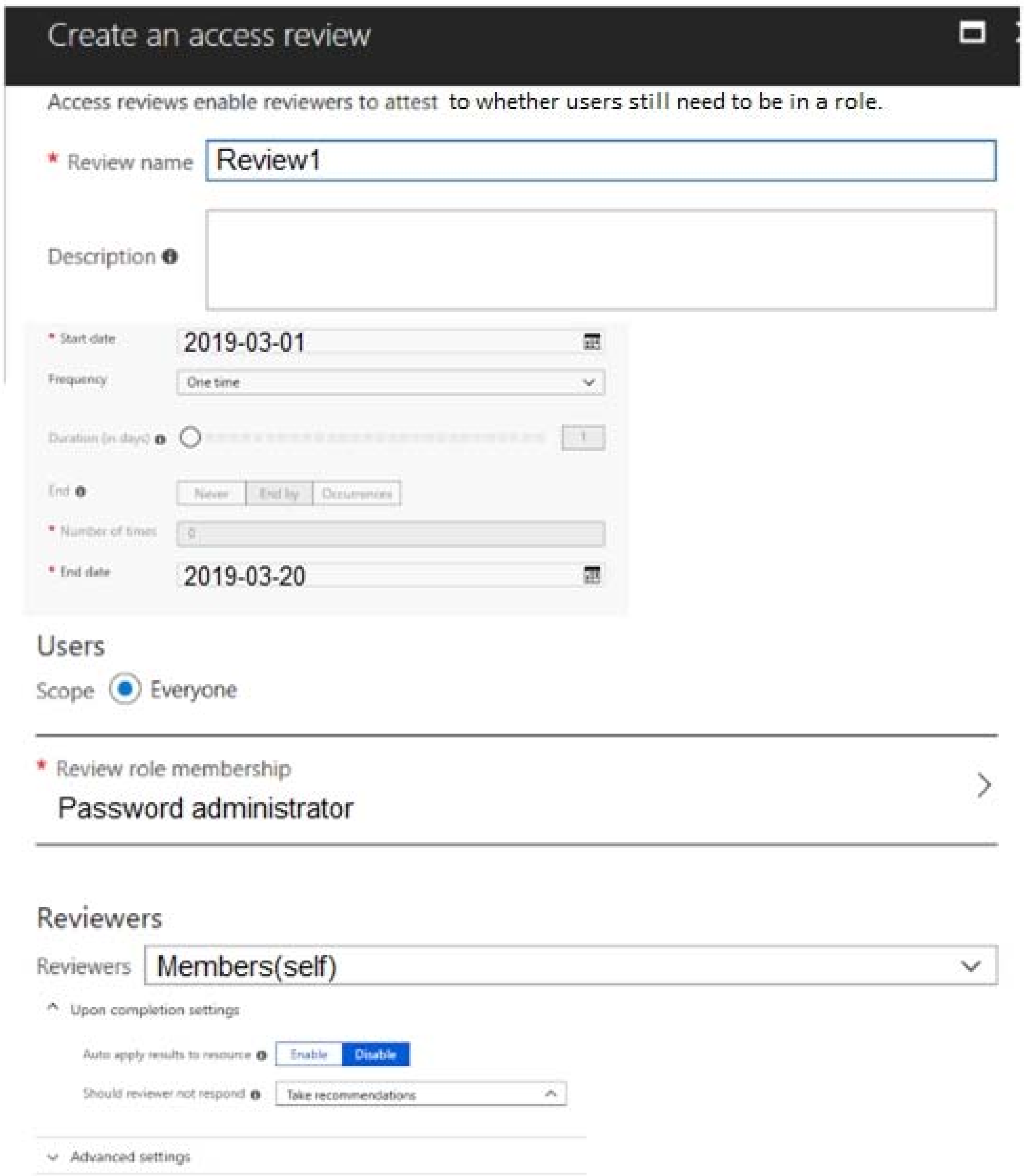
https://docs.microsoft.com/en-us/azure/active-directory/governance/create-access-review https://docs.microsoft.com/en-us/azure/active-directory/governance/manage-programs-controls

HOTSPOT -

You have an Azure Active Directory (Azure AD) tenant named contoso.com. The tenant contains the users shown in the following table.

Name	Role	Sign in frequency
User1	Password administrator	Sign in every work day
User2	Password administrator	Sign in bi-weekly
User3	Global administrator, Password administrator	Signs in every month

You configure an access review named Review1 as shown in the following exhibit.



Create an access review

Access reviews enable reviewers to attest to whether users still need to be in a role.

* Review name: Review1

Description

* Start date: 2019-03-01

Frequency: One time

Duration (in days): 1

End: Never | End by | Occurrences

* Number of times: 0

* End date: 2019-03-20

Users

Scope ● Everyone

* Review role membership: Password administrator

Reviewers

Reviewers: Members(self)

Upon completion settings

Auto apply results to resource: Enable | Disable

Should reviewer not respond: Take recommendations

Advanced settings

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answer: *Explanation*

Box 1: User3 only -

Use the Members (self) option to have the users review their own role assignments.

Box 2: User3 will receive a confirmation request

Use the Should reviewer not respond list to specify what happens for users that are not reviewed by the reviewer within the review period. This setting does not impact users who have been reviewed by the reviewers manually. If the final reviewer's decision is Deny, then the user's access will be removed.

No change - Leave user's access unchanged

Remove access - Remove user's access

Approve access - Approve user's access

Take recommendations - Take the system's recommendation on denying or approving the user's continued access

References:

https://docs.microsoft.com/bs-latn-ba/azure/active-directory/privileged-identity-management/pim-how-to-start-security-review

Question #11 *Topic 1*

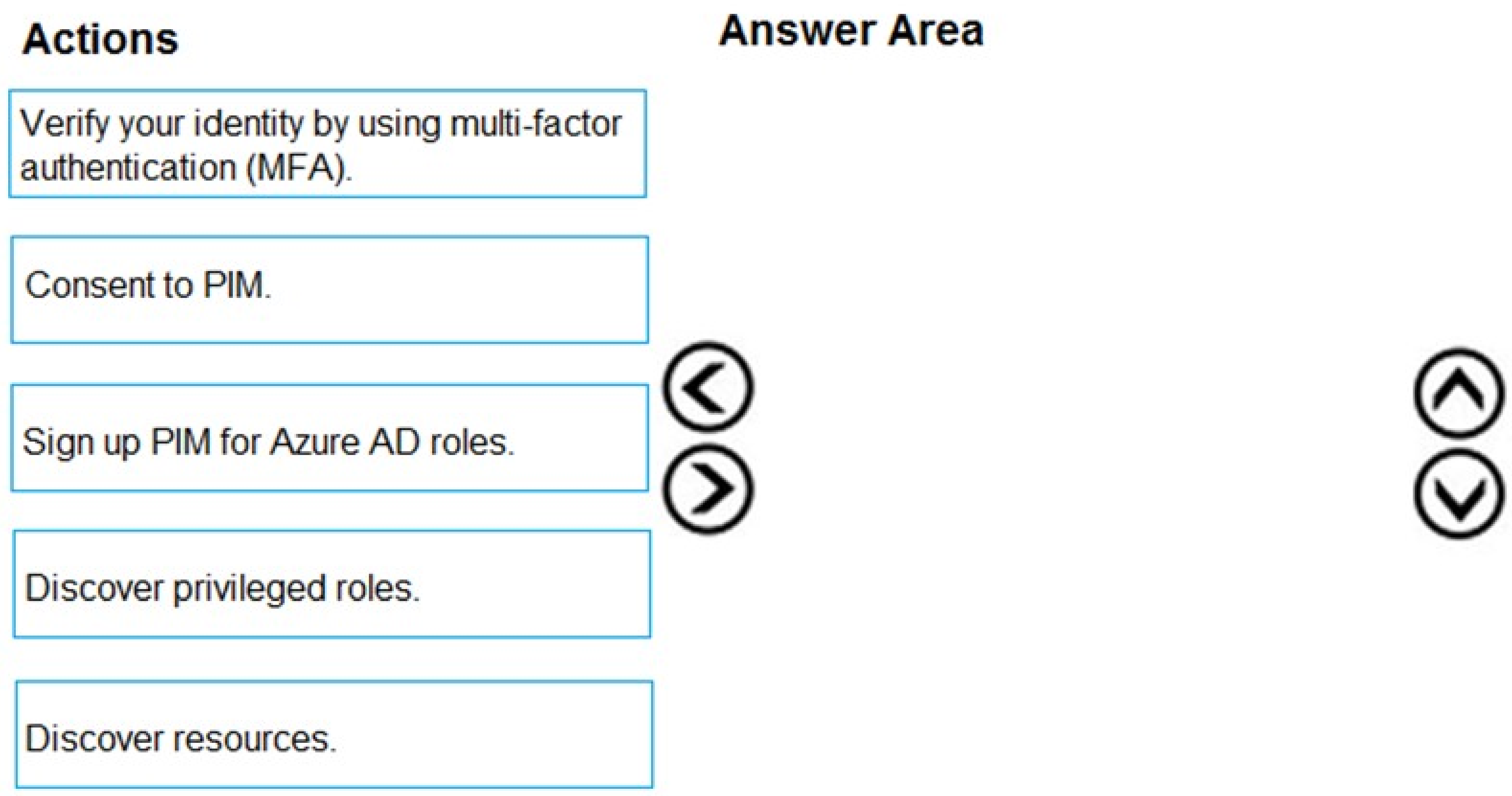
DRAG DROP -

You create an Azure subscription.

You need to ensure that you can use Azure Active Directory (Azure AD) Privileged Identity Management (PIM) to secure Azure AD roles.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

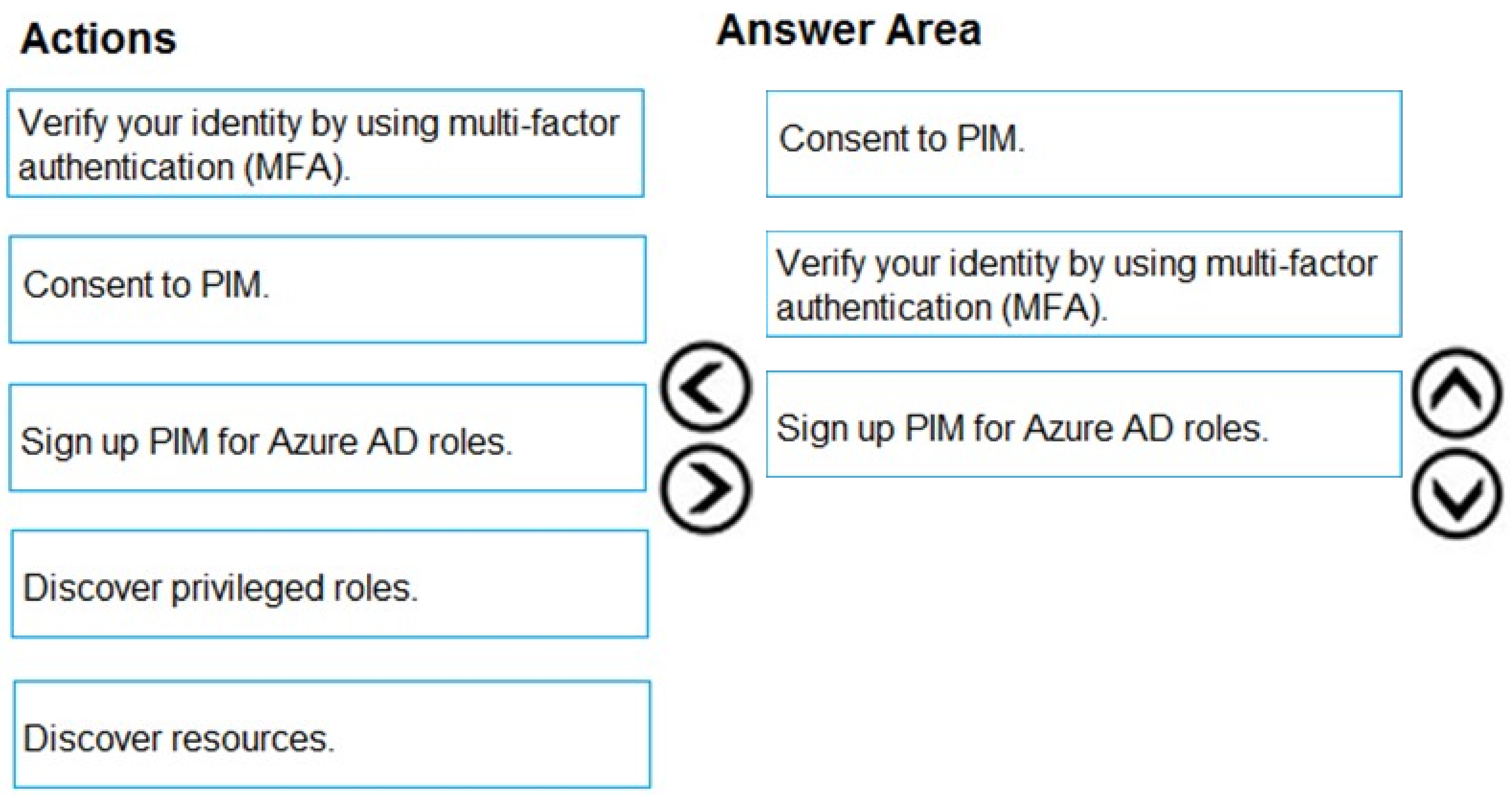


Actions

- Verify your identity by using multi-factor authentication (MFA).
- Consent to PIM.
- Sign up PIM for Azure AD roles.
- Discover privileged roles.
- Discover resources.

Answer Area

Correct Answer:



Actions

Verify your identity by using multi-factor authentication (MFA).

Consent to PIM.

Sign up PIM for Azure AD roles.

Discover privileged roles.

Discover resources.

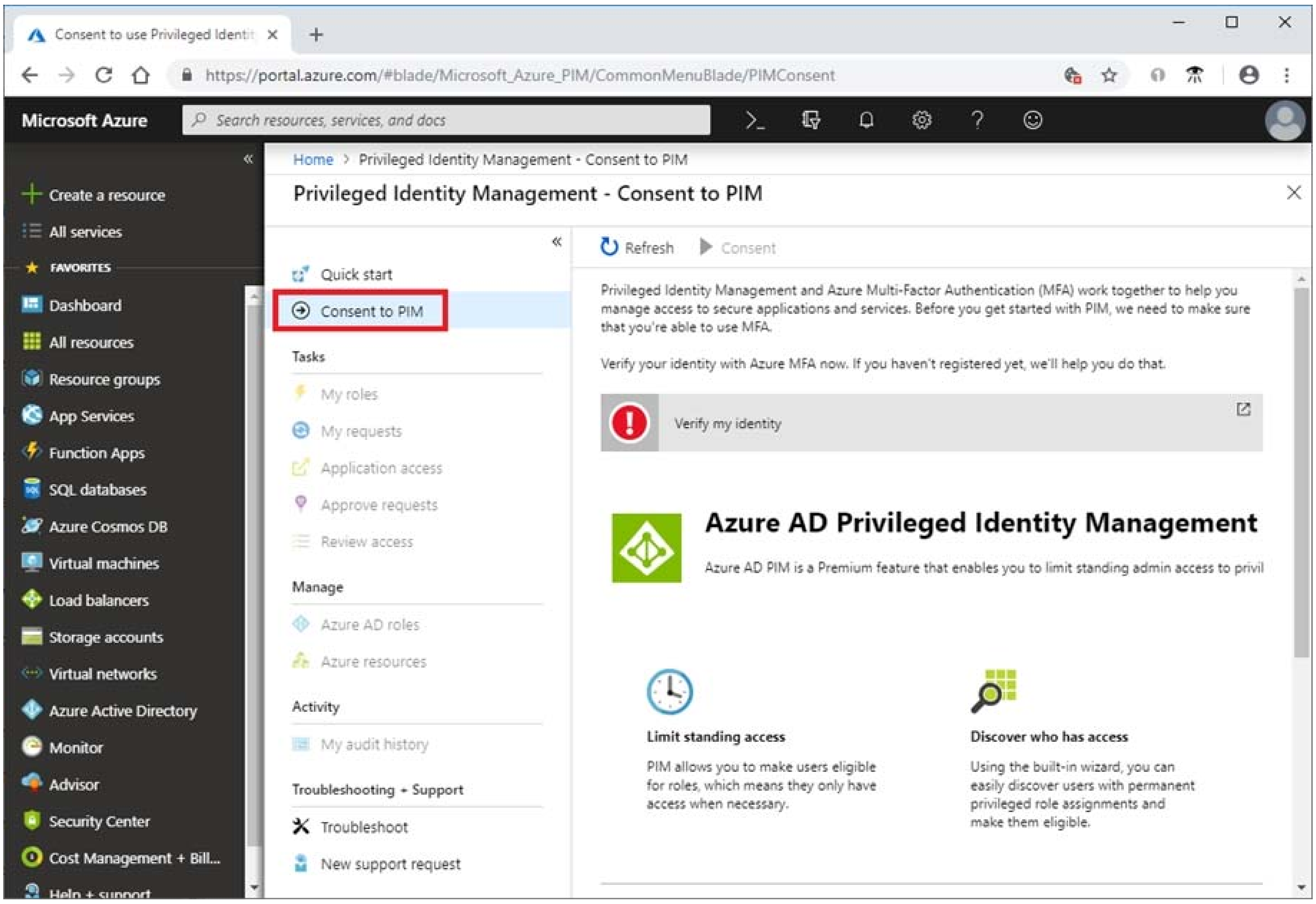
Answer Area

Consent to PIM.

Verify your identity by using multi-factor authentication (MFA).

Sign up PIM for Azure AD roles.

Step 1: Consent to PIM -



Consent to use Privileged Identit ×

https://portal.azure.com/#blade/Microsoft_Azure_PIM/CommonMenuBlade/PIMConsent

Microsoft Azure

Search resources, services, and docs

+ Create a resource

All services

FAVORITES

Dashboard

All resources

Resource groups

App Services

Function Apps

SQL databases

Azure Cosmos DB

Virtual machines

Load balancers

Storage accounts

Virtual networks

Azure Active Directory

Monitor

Advisor

Security Center

Cost Management + Bill...

Help + support

Home > Privileged Identity Management - Consent to PIM

Privileged Identity Management - Consent to PIM

Quick start

Consent to PIM

Tasks

My roles

My requests

Application access

Approve requests

Review access

Manage

Azure AD roles

Azure resources

Activity

My audit history

Troubleshooting + Support

Troubleshoot

New support request

Refresh ▶ Consent

Privileged Identity Management and Azure Multi-Factor Authentication (MFA) work together to help you manage access to secure applications and services. Before you get started with PIM, we need to make sure that you're able to use MFA.

Verify your identity with Azure MFA now. If you haven't registered yet, we'll help you do that.

Verify my identity

Azure AD Privileged Identity Management

Azure AD PIM is a Premium feature that enables you to limit standing admin access to privil

Limit standing access

PIM allows you to make users eligible for roles, which means they only have access when necessary.

Discover who has access

Using the built-in wizard, you can easily discover users with permanent privileged role assignments and make them eligible.

Step: 2 Verify your identity by using multi-factor authentication (MFA)

Click Verify my identity to verify your identity with Azure MFA. You'll be asked to pick an account.

Step 3: Sign up PIM for Azure AD roles

Once you have enabled PIM for your directory, you'll need to sign up PIM to manage Azure AD roles.

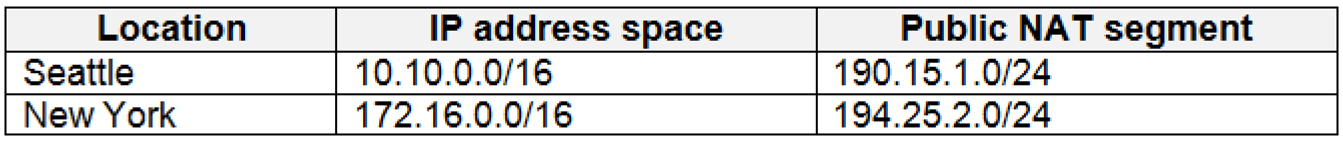
References:

https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-getting-started

Question #12 *Topic 1*

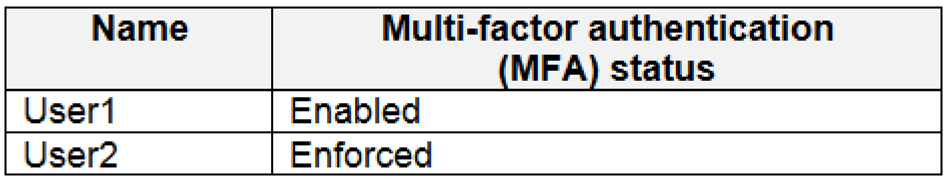
HOTSPOT -

Your company has two offices in Seattle and New York. Each office connects to the Internet by using a NAT device. The offices use the IP addresses shown in the following table.



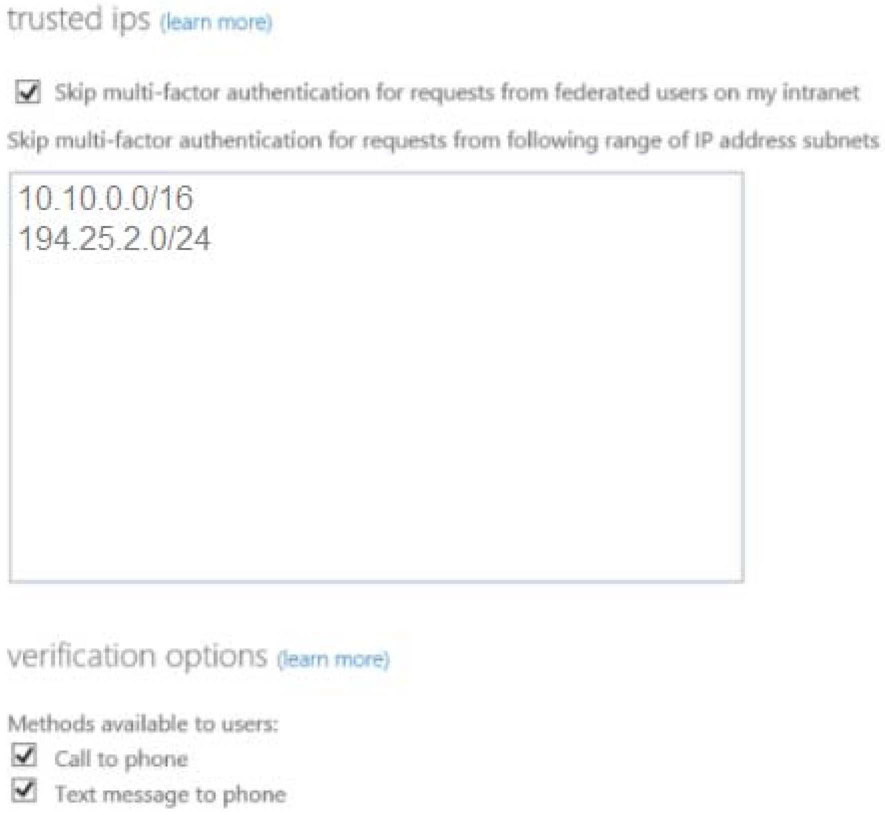
Location	IP address space	Public NAT segment
Seattle	10.10.0.0/16	190.15.1.0/24
New York	172.16.0.0/16	194.25.2.0/24

The company has an Azure Active Directory (Azure AD) tenant named contoso.com. The tenant contains the users shown in the following table.



Name	Multi-factor authentication (MFA) status
User1	Enabled
User2	Enforced

The MFA service settings are configured as shown in the exhibit. (Click the Exhibit tab.)



trusted ips (learn more)

☑ Skip multi-factor authentication for requests from federated users on my intranet

Skip multi-factor authentication for requests from following range of IP address subnets

```
10.10.0.0/16
194.25.2.0/24
```

verification options (learn more)

Methods available to users:

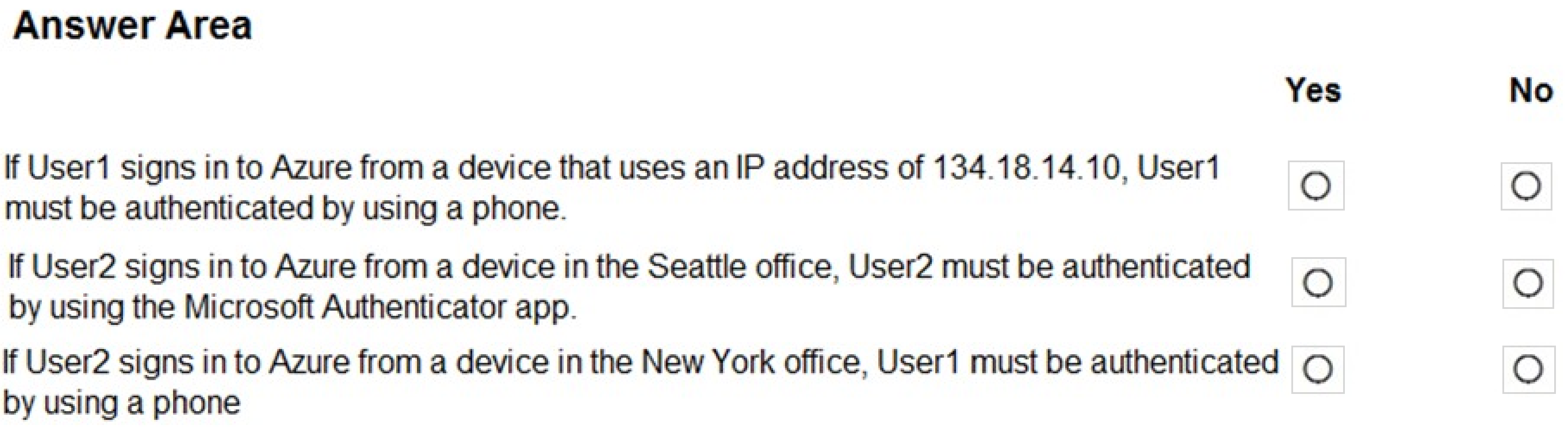
☑ Call to phone

☑ Text message to phone

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

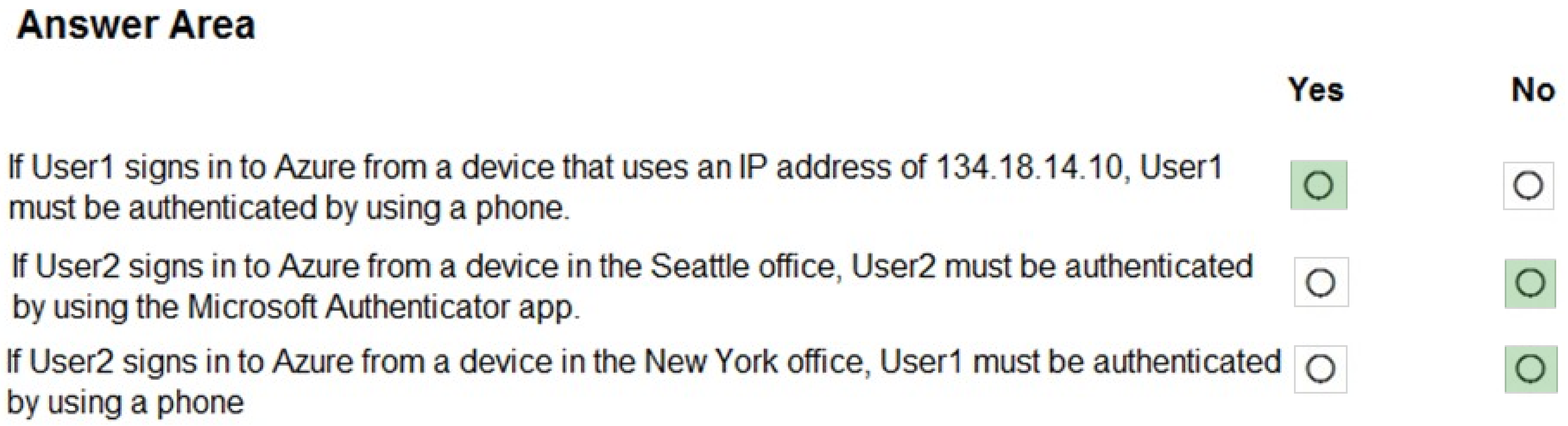
Hot Area:



Answer Area

	Yes	No
If User1 signs in to Azure from a device that uses an IP address of 134.18.14.10, User1 must be authenticated by using a phone.	○	○
If User2 signs in to Azure from a device in the Seattle office, User2 must be authenticated by using the Microsoft Authenticator app.	○	○
If User2 signs in to Azure from a device in the New York office, User1 must be authenticated by using a phone	○	○

Correct Answer:



Answer Area

	Yes	No
If User1 signs in to Azure from a device that uses an IP address of 134.18.14.10, User1 must be authenticated by using a phone.	[✓ ○]	○
If User2 signs in to Azure from a device in the Seattle office, User2 must be authenticated by using the Microsoft Authenticator app.	○	[✓ ○]
If User2 signs in to Azure from a device in the New York office, User1 must be authenticated by using a phone	○	[✓ ○]

Box 2: No -

Use of Microsoft Authenticator is not required.

Note: Microsoft Authenticator is a multifactor app for mobile devices that generates time-based codes used during the Two-Step Verification process.

Box 3: No -

The New York IP address subnet is included in the "skip multi-factor authentication for request.

References:

https://www.cayosoft.com/difference-enabling-enforcing-mfa/

Question #13

Topic 1

Your company plans to create separate subscriptions for each department. Each subscription will be associated to the same Azure Active Directory (Azure AD) tenant.

You need to configure each subscription to have the same role assignments.

What should you use?

A. Azure Security Center

B. Azure Blueprints

C. Azure AD Privileged Identity Management (PIM)

D. Azure Policy

Correct Answer: *C*

The Azure AD Privileged Identity Management (PIM) service also allows Privileged Role Administrators to make permanent admin role assignments.

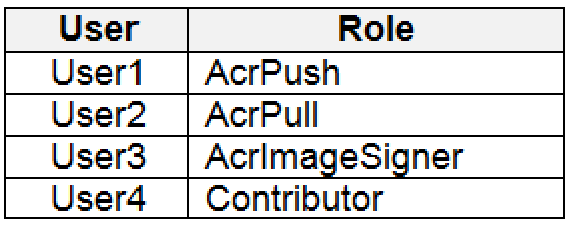
References:

https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-how-to-add-role-to-user

HOTSPOT -

You have an Azure Container Registry named Registry1.

You add role assignment for Registry1 as shown in the following table.

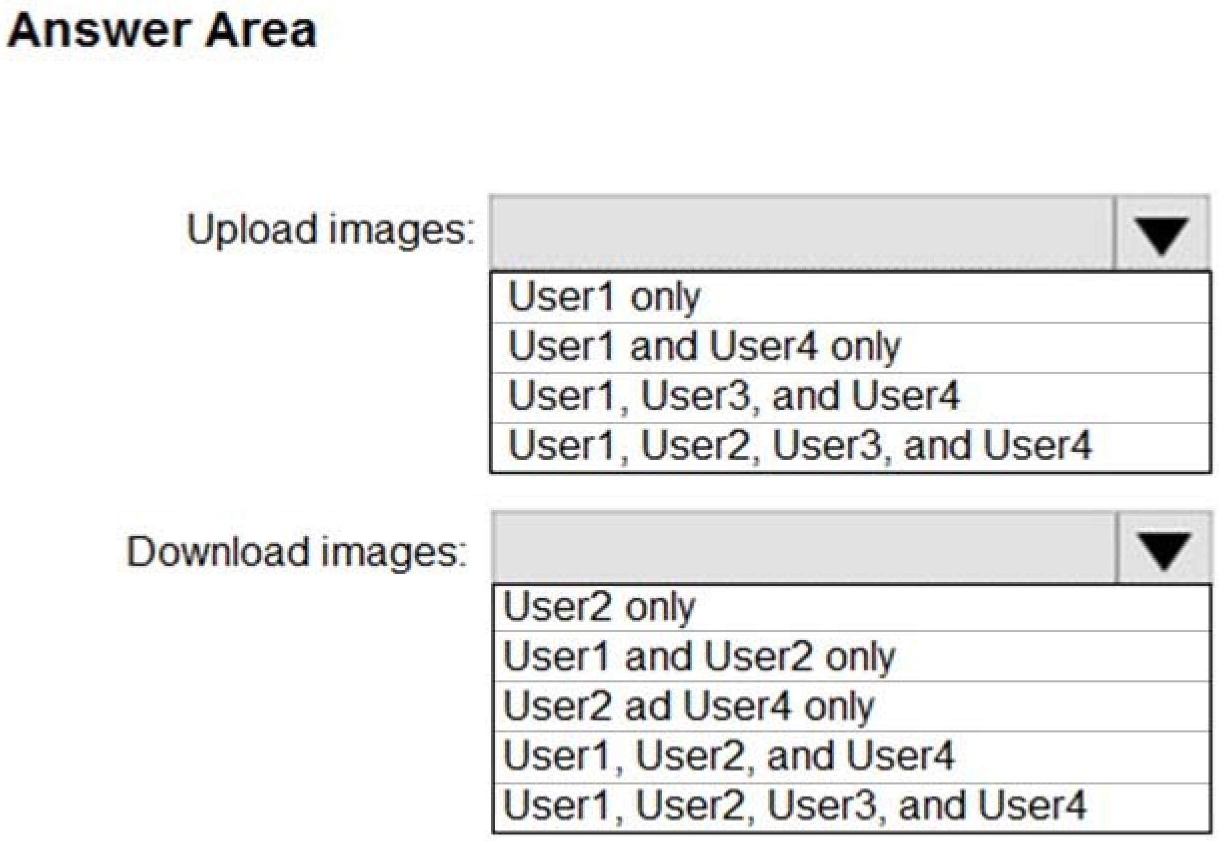


User	Role
User1	AcrPush
User2	AcrPull
User3	AcrImageSigner
User4	Contributor

Which users can upload images to Registry1 and download images from Registry1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

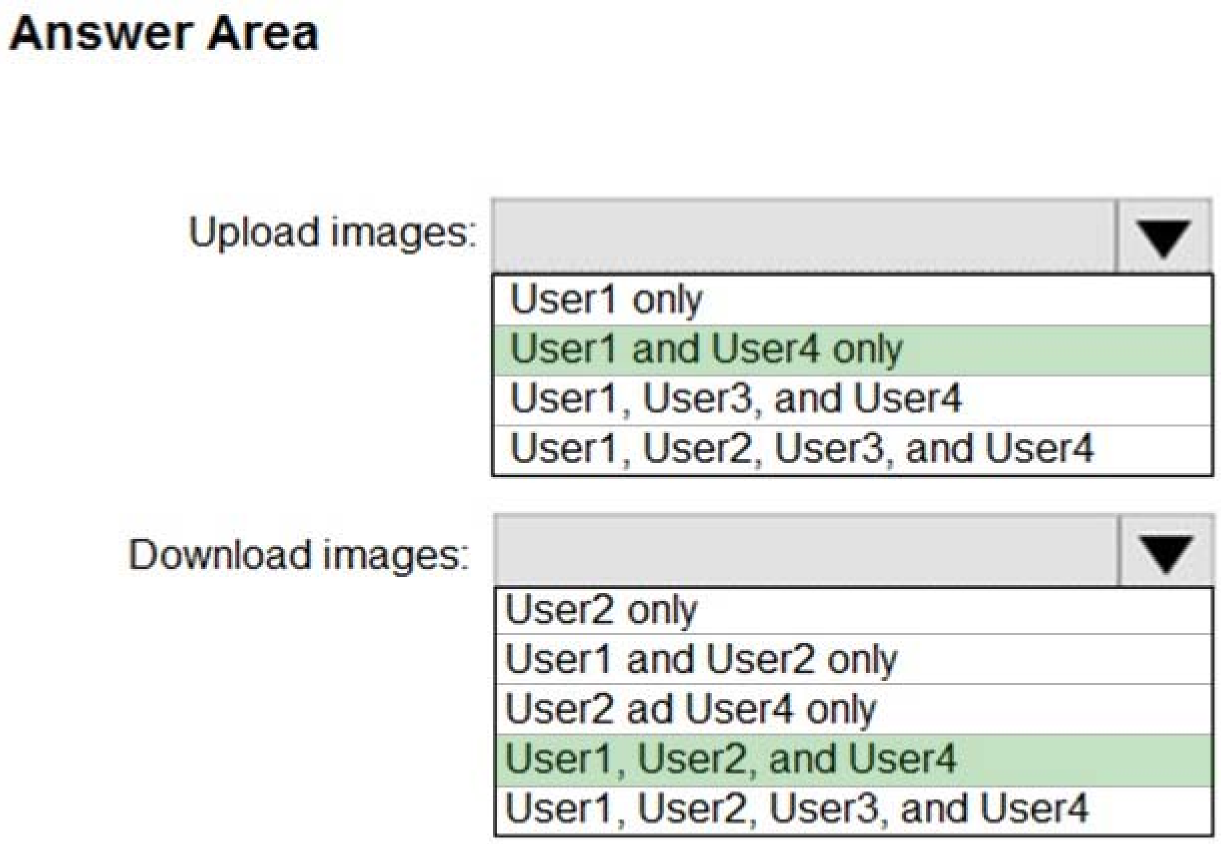
Upload images:

- User1 only
- User1 and User4 only
- User1, User3, and User4
- User1, User2, User3, and User4

Download images:

- User2 only
- User1 and User2 only
- User2 ad User4 only
- User1, User2, and User4
- User1, User2, User3, and User4

Correct Answer:



Answer Area

Upload images:

- User1 only
- [✓ User1 and User4 only]
- User1, User3, and User4
- User1, User2, User3, and User4

Download images:

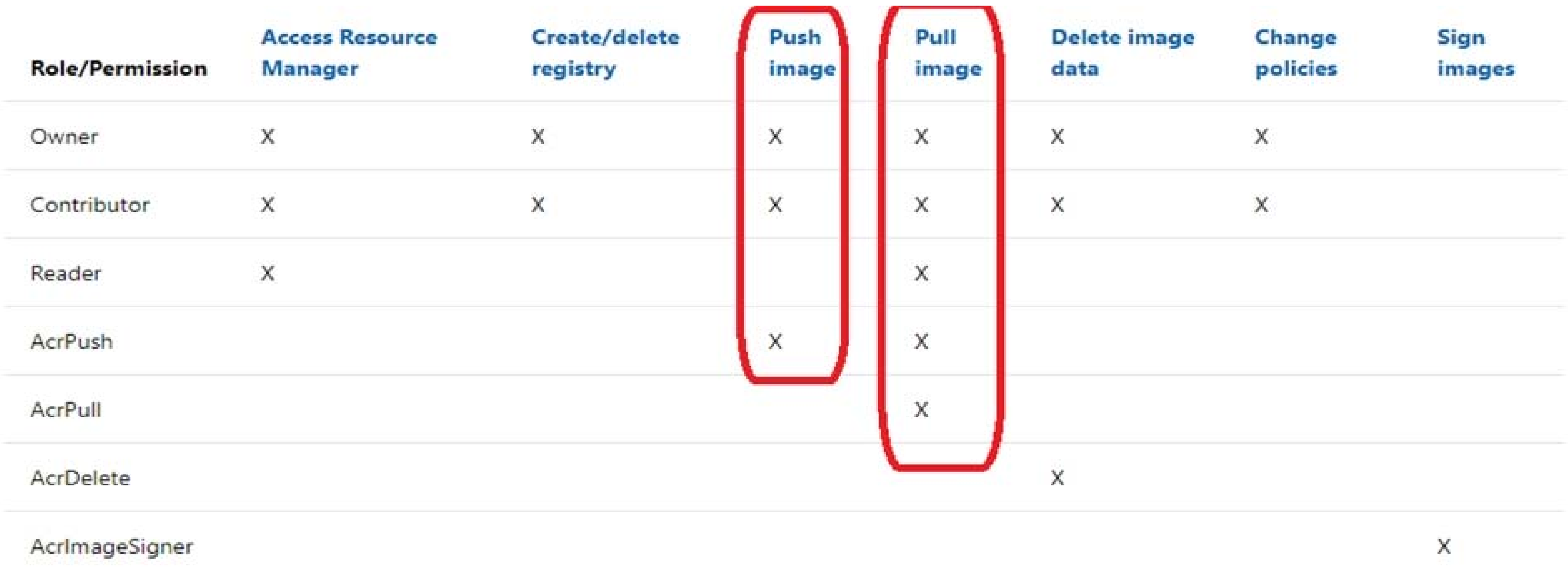
- User2 only
- User1 and User2 only
- User2 ad User4 only
- [✓ User1, User2, and User4]
- User1, User2, User3, and User4

Box 1: User1 and User4 only -

Owner, Contributor and AcrPush can push images.

Box 2: User1, User2, and User4 -

All, except AcrImagineSigner, can download/pull images.



Role/Permission	Access Resource Manager	Create/delete registry	Push image	Pull image	Delete image data	Change policies	Sign images
Owner	X	X	X	X	X	X	
Contributor	X	X	X	X	X	X	
Reader	X			X			
AcrPush			X	X			
AcrPull				X			
AcrDelete					X		
AcrImageSigner							X

References:

https://docs.microsoft.com/bs-latn-ba/azure/container-registry/container-registry-roles

Question #15 *Topic 1*

You have an Azure subscription.
You create an Azure web app named Contoso1812 that uses an S1 App service plan.
You create a DNS record for www.contoso.com that points to the IP address of Contoso1812.
You need to ensure that users can access Contoso1812 by using the https://www.contoso.com URL.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. Turn on the system-assigned managed identity for Contoso1812.

B. Add a hostname to Contoso1812.

C. Scale out the App Service plan of Contoso1812.

D. Add a deployment slot to Contoso1812.

E. Scale up the App Service plan of Contoso1812.

Correct Answer: *BE*
B: You can configure Azure DNS to host a custom domain for your web apps. For example, you can create an Azure web app and have your users access it using either www.contoso.com or contoso.com as a fully qualified domain name (FQDN).
To do this, you have to create three records:
A root "A" record pointing to contoso.com
A root "TXT" record for verification
A "CNAME" record for the www name that points to the A record
E: To map a custom DNS name to a web app, the web app's App Service plan must be a paid tier (Shared, Basic, Standard, Premium or Consumption for Azure

Functions). I -
Scale up the App Service plan: Select any of the non-free tiers (D1, B1, B2, B3, or any tier in the Production category).
References:
https://docs.microsoft.com/en-us/azure/dns/dns-web-sites-custom-domain

Question #16 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure subscription named Sub1.
You have an Azure Storage account named Sa1 in a resource group named RG1.
Users and applications access the blob service and the file service in Sa1 by using several shared access signatures (SASs) and stored access policies.
You discover that unauthorized users accessed both the file service and the blob service.
You need to revoke all access to Sa1.
Solution: You create a lock on Sa1.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately affects all of the shared access signatures associated with it.
References:
https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

Question #17 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a hybrid configuration of Azure Active Directory (Azure AD).
You have an Azure HDInsight cluster on a virtual network.
You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.
You need to configure the environment to support the planned authentication.
Solution: You deploy Azure Active Directory Domain Services (Azure AD DS) to the Azure subscription.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
Instead, you connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.
Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions:
➾ Create Azure Virtual Network.
➾ Create a custom DNS server in the Azure Virtual Network.
➾ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
➾ Configure forwarding between the custom DNS server and your on-premises DNS server.
References:
https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

Question #18 | *Topic 1*

Your network contains an Active Directory forest named contoso.com. You have an Azure Directory (Azure AD) tenant named contoso.com.
You plan to configure synchronization by using the Express Settings installation option in Azure AD Connect.
You need to identify which roles and groups are required to perform the planned configuration. The solution must use the principle of least privilege.
Which two roles and groups should you identify? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. the Domain Admins group in Active Directory

B. the Security administrator role in Azure AD

C. the Global administrator role in Azure AD

D. the User administrator role in Azure AD

E. the Enterprise Admins group in Active Directory

Correct Answer: *CE*
References:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/reference-connect-accounts-permissions

Question #19 *Topic 1*

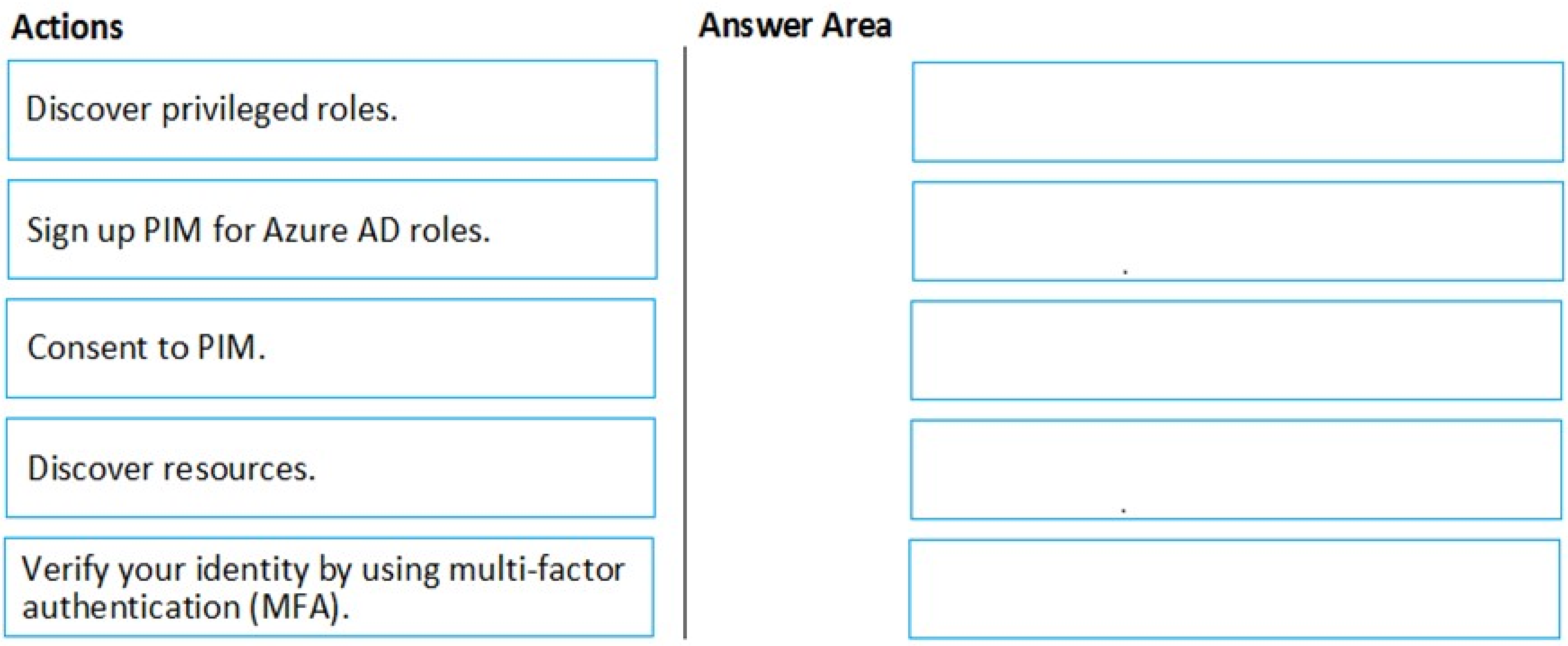
DRAG DROP -

You create an Azure subscription with Azure AD Premium P2.

You need to ensure that you can use Azure Active Directory (Azure AD) Privileged Identity Management (PIM) to secure Azure AD roles.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

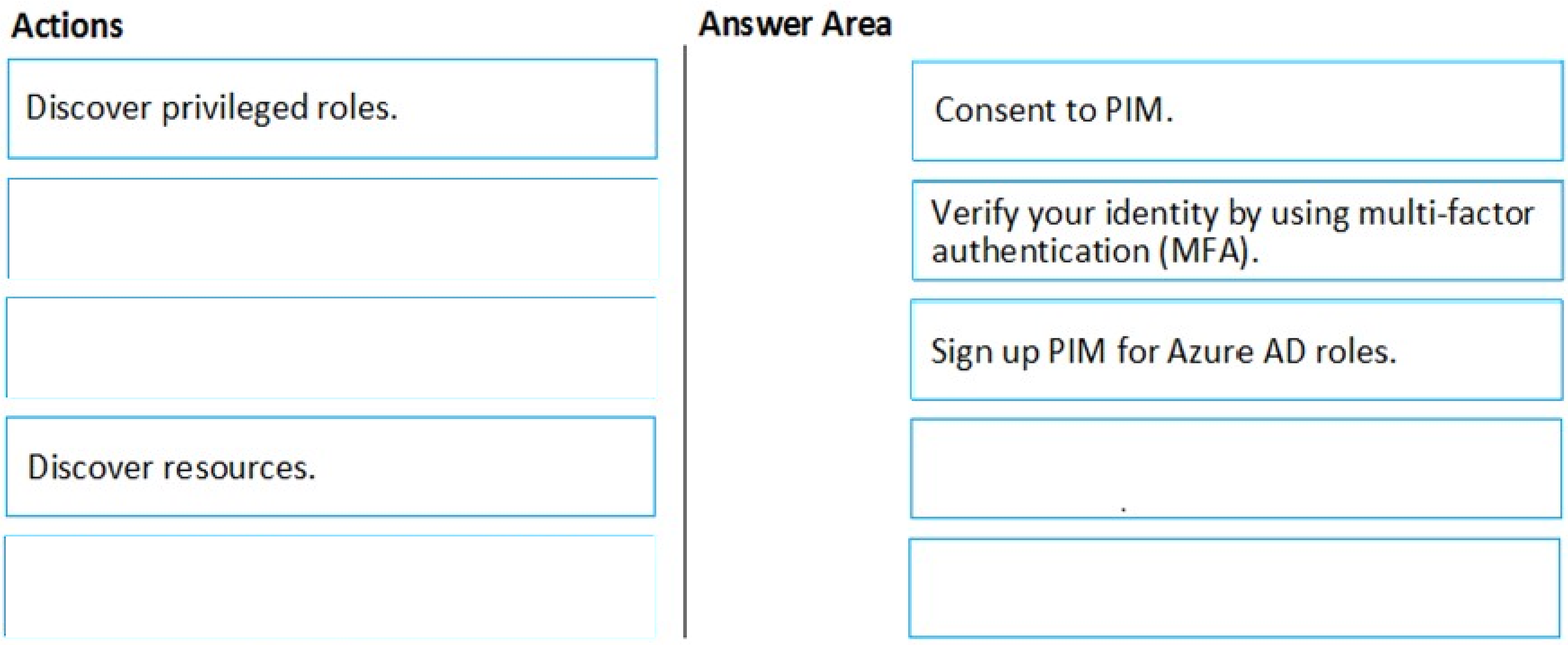


Actions

- Discover privileged roles.
- Sign up PIM for Azure AD roles.
- Consent to PIM.
- Discover resources.
- Verify your identity by using multi-factor authentication (MFA).

Answer Area

Correct Answer:



Actions

- Discover privileged roles.
- Discover resources.

Answer Area

- Consent to PIM.
- Verify your identity by using multi-factor authentication (MFA).
- Sign up PIM for Azure AD roles.

Question #20 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have a hybrid configuration of Azure Active Directory (Azure AD).
You have an Azure HDInsight cluster on a virtual network.
You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.
You need to configure the environment to support the planned authentication.
Solution: You deploy an Azure AD Application Proxy.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
Instead, you connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.
Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions:
✑ Create Azure Virtual Network.
✑ Create a custom DNS server in the Azure Virtual Network.
✑ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
✑ Configure forwarding between the custom DNS server and your on-premises DNS server.
Reference:
https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

Question #21 *Topic 1*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Subscription named Sub1.
You have an Azure Storage account named Sa1 in a resource group named RG1.
Users and applications access the blob service and the file service in Sa1 by using several shared access signatures (SASs) and stored access policies.
You discover that unauthorized users accessed both the file service and the blob service.
You need to revoke all access to Sa1.
Solution: You regenerate the access keys.
Does this meet the goal?

A. Yes

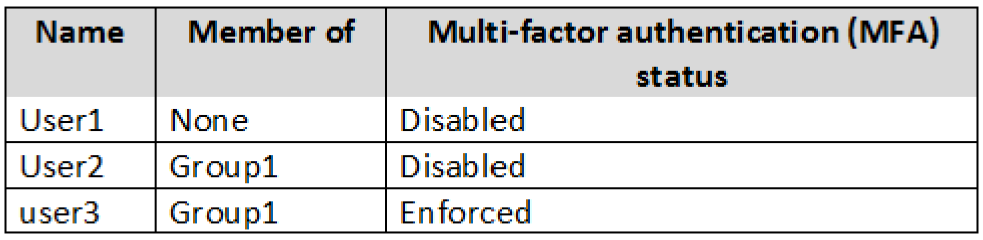
B. No

Correct Answer: *B*
Instead you should create a new stored access policy.
To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately affects all of the shared access signatures associated with it.
Reference:
https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

Question #22 Topic 1

HOTSPOT -

You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains the users shown in the following table.



Name	Member of	Multi-factor authentication (MFA) status
User1	None	Disabled
User2	Group1	Disabled
user3	Group1	Enforced

Azure AD Privileged Identity Management (PIM) is enabled for the tenant.

In PIM, the Password Administrator role has the following settings:

➾ Maximum activation duration (hours): 2

➾ Send email notifying admins of activation: Disable

➾ Require incident/request ticket number during activation: Disable

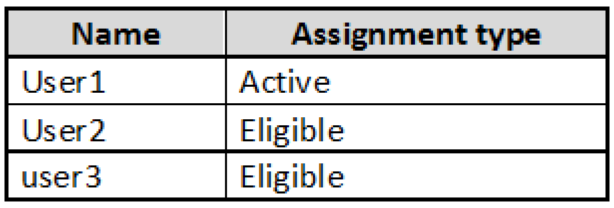
➾ Require Azure Multi-Factor Authentication for activation: Enable

➾ Require approval to activate this role: Enable

Selected approver: Group1 -

▪

You assign users the Password Administrator role as shown in the following table.

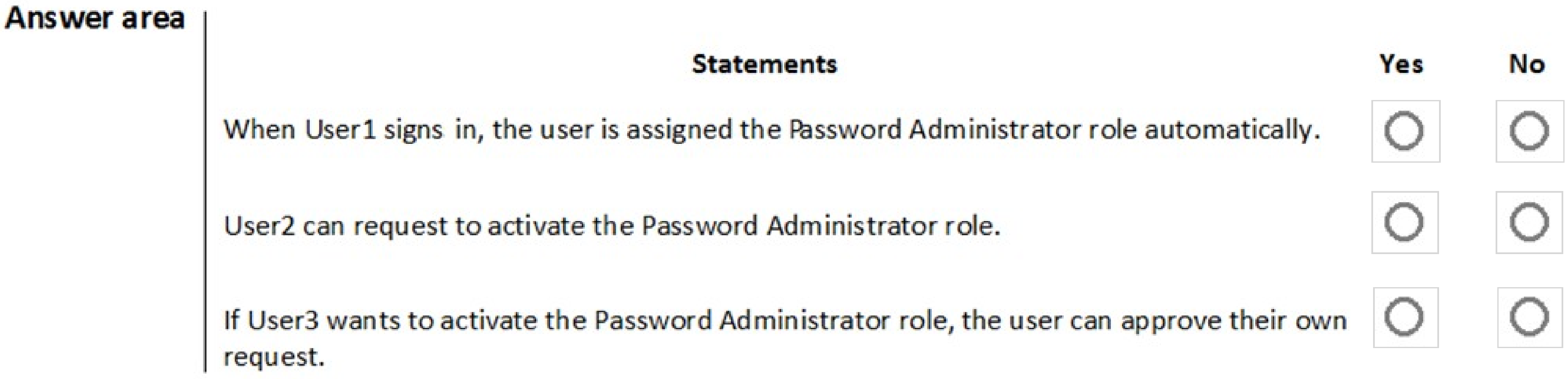


Name	Assignment type
User1	Active
User2	Eligible
user3	Eligible

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

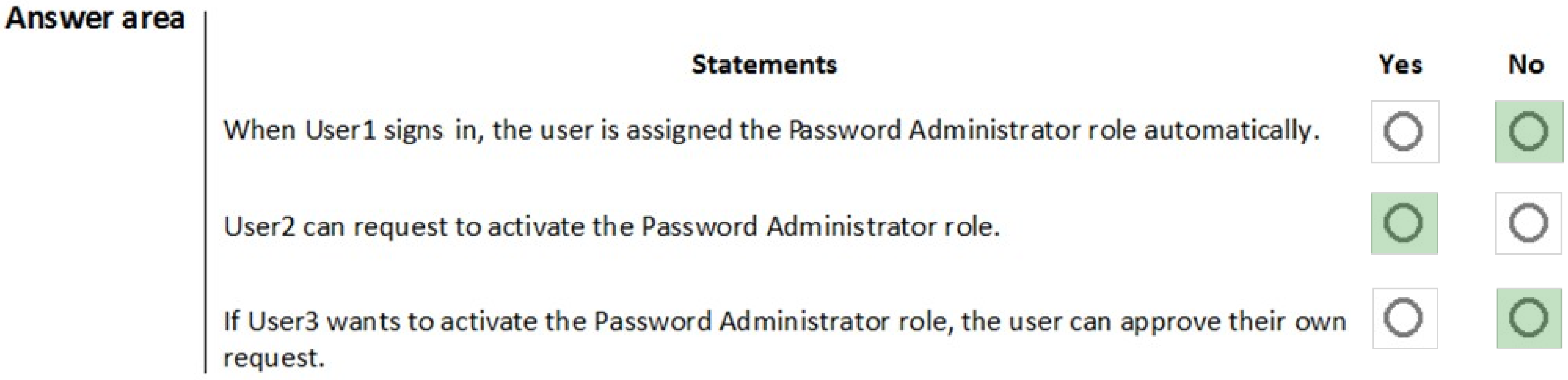
Hot Area:



Answer area

Statements	Yes	No
When User1 signs in, the user is assigned the Password Administrator role automatically.	○	○
User2 can request to activate the Password Administrator role.	○	○
If User3 wants to activate the Password Administrator role, the user can approve their own request.	○	○

Correct Answer:



Answer area

Statements	Yes	No
When User1 signs in, the user is assigned the Password Administrator role automatically.	○	[✓ ○]
User2 can request to activate the Password Administrator role.	[✓ ○]	○
If User3 wants to activate the Password Administrator role, the user can approve their own request.	○	[✓ ○]

Box 1: Yes -

Active assignments don't require the member to perform any action to use the role. Members assigned as active have the privileges assigned to the role at all times.

Box 2: No -

MFA is disabled for User2 and the setting Require Azure Multi-Factor Authentication for activation is enabled.

Note: Eligible assignments require the member of the role to perform an action to use the role. Actions might include performing a multi-factor authentication

(MFA) check, providing a business justification, or requesting approval from designated approvers.

Box 3: Yes -
User3 is Group1, which is a Selected Approver Group
Reference:
https://docs.microsoft.com/bs-latn-ba/azure/active-directory/privileged-identity-management/pim-resource-roles-assign-roles

Question #23 *Topic 1*

You have a hybrid configuration of Azure Active Directory (Azure AD). You have an Azure SQL Database instance that is configured to support Azure AD authentication.
Database developers must connect to the database instance and authenticate by using their on-premises Active Directory account.
You need to ensure that developers can connect to the instance by using Microsoft SQL Server Management Studio. The solution must minimize authentication prompts.
Which authentication method should you recommend?

A. Active Directory - Password

B. Active Directory - Universal with MFA support

C. SQL Server Authentication

D. Active Directory - Integrated

Correct Answer: *A*
Use Active Directory password authentication when connecting with an Azure AD principal name using the Azure AD managed domain.
Use this method to authenticate to SQL DB/DW with Azure AD for native or federated Azure AD users. A native user is one explicitly created in Azure AD and being authenticated using user name and password, while a federated user is a Windows user whose domain is federated with Azure AD. The latter method
(using user & password) can be used when a user wants to use their windows credential, but their local machine is not joined with the domain (for example, using a remote access). In this case, a Windows user can indicate their domain account and password and can authenticate to SQL DB/DW using federated credentials.
Incorrect Answers:
D: Use Active Directory integrated authentication if you are logged in to Windows using your Azure Active Directory credentials from a federated domain.
References:
https://docs.microsoft.com/en-us/azure/sql-database/sql-database-aad-authentication-configure

Question #24 Topic 1

You plan to use Azure Resource Manager templates to perform multiple deployments of identically configured Azure virtual machines. The password for the administrator account of each deployment is stored as a secret in different Azure key vaults.

You need to identify a method to dynamically construct a resource ID that will designate the key vault containing the appropriate secret during each deployment.

The name of the key vault and the name of the secret will be provided as inline parameters.

What should you use to construct the resource ID?

A. a key vault access policy

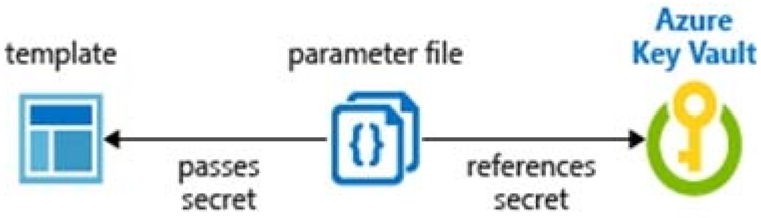
B. a linked template

C. a parameters file

D. an automation account

Correct Answer: *C*

You reference the key vault in the parameter file, not the template. The following image shows how the parameter file references the secret and passes that value to the template.



Reference:

https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-keyvault-parameter

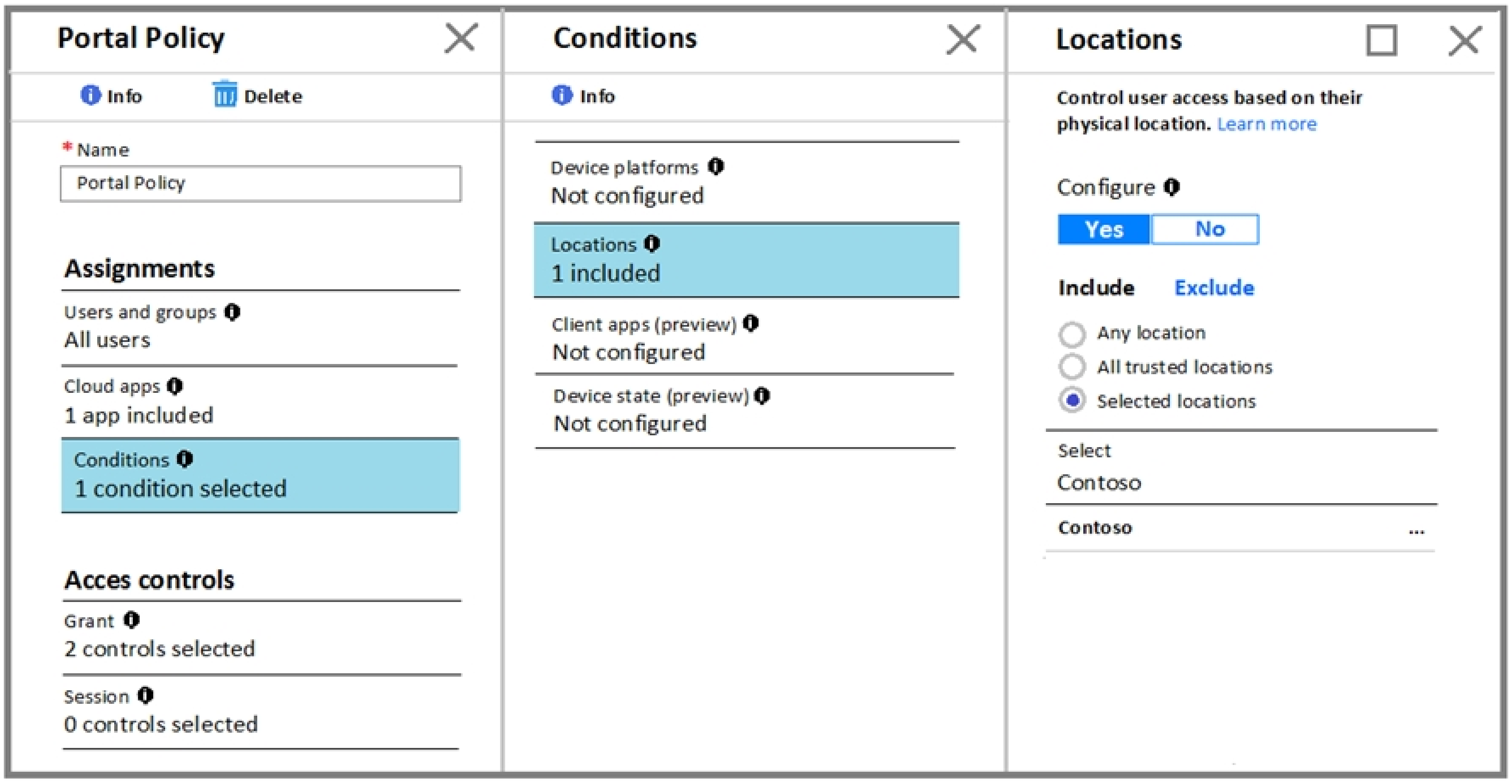
Question #25 *Topic 1*

HOTSPOT -

You create a new Azure subscription that is associated to a new Azure Active Directory (Azure AD) tenant.

You create one active conditional access policy named Portal Policy. Portal Policy is used to provide access to the Microsoft Azure Management cloud app.

The Conditions settings for Portal Policy are configured as shown in the Conditions exhibit. (Click the Conditions tab.)



Portal Policy

Info | Delete

* Name: Portal Policy

Assignments

Users and groups: All users

Cloud apps: 1 app included

Conditions: 1 condition selected

Acces controls

Grant: 2 controls selected

Session: 0 controls selected

Conditions

Info

Device platforms: Not configured

Locations: 1 included

Client apps (preview): Not configured

Device state (preview): Not configured

Locations

Control user access based on their physical location. Learn more

Configure: **Yes** | No

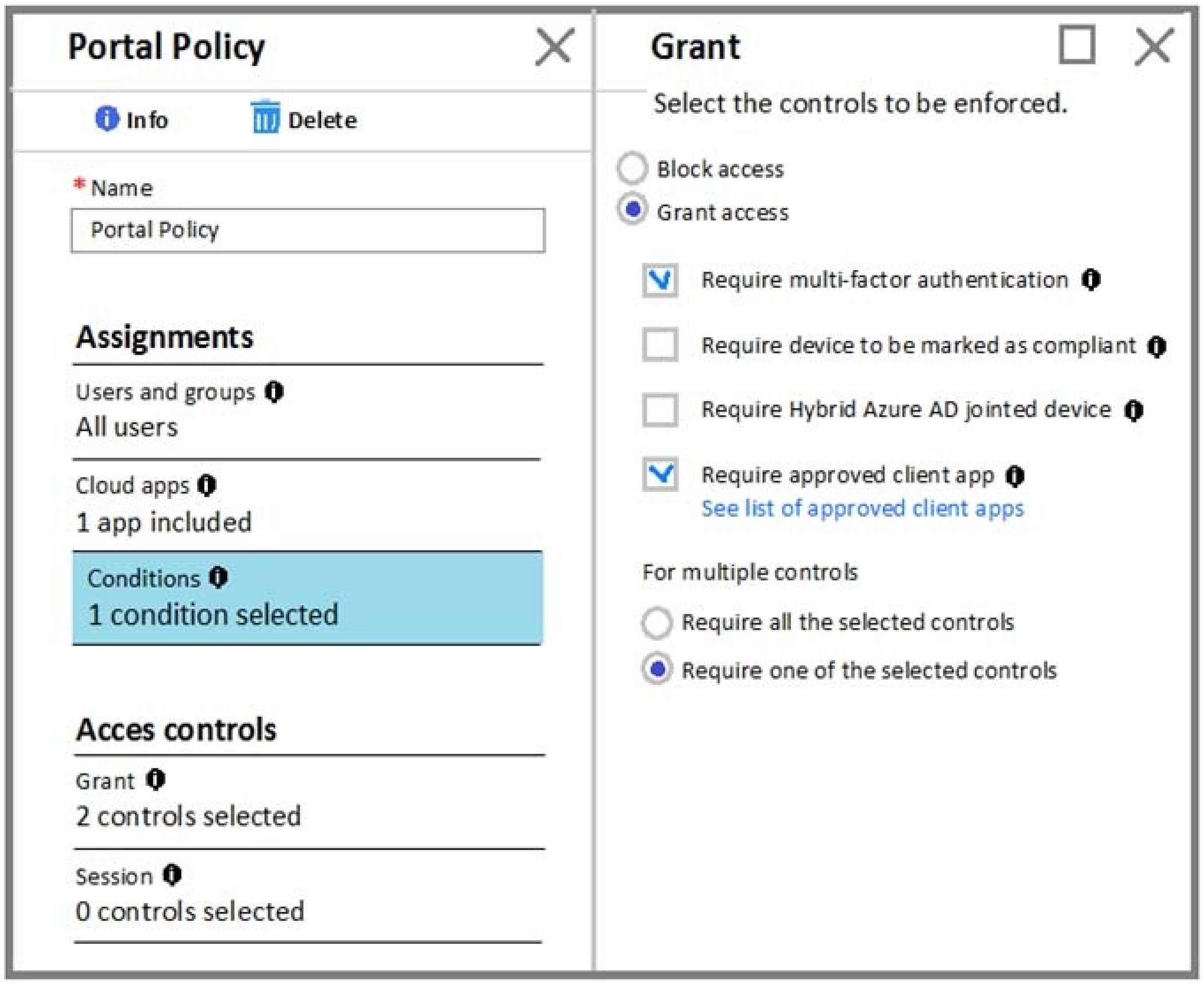
Include | Exclude

○ Any location
○ All trusted locations
● Selected locations

Select: Contoso

Contoso ...

The Grant settings for Portal Policy are configured as shown in the Grant exhibit. (Click the Grant tab.)



Portal Policy

Info | Delete

* Name: Portal Policy

Assignments

Users and groups: All users

Cloud apps: 1 app included

Conditions: 1 condition selected

Acces controls

Grant: 2 controls selected

Session: 0 controls selected

Grant

Select the controls to be enforced.

○ Block access
● Grant access

☑ Require multi-factor authentication
☐ Require device to be marked as compliant
☐ Require Hybrid Azure AD jointed device
☑ Require approved client app
See list of approved client apps

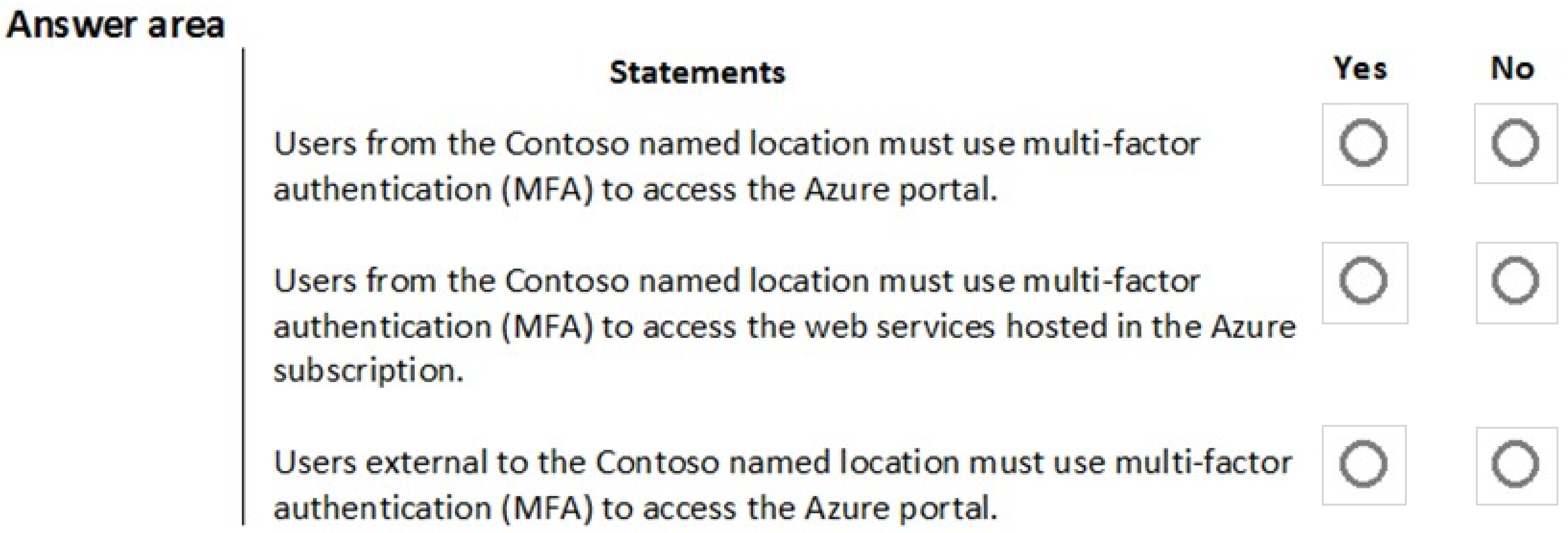
For multiple controls

○ Require all the selected controls
● Require one of the selected controls

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

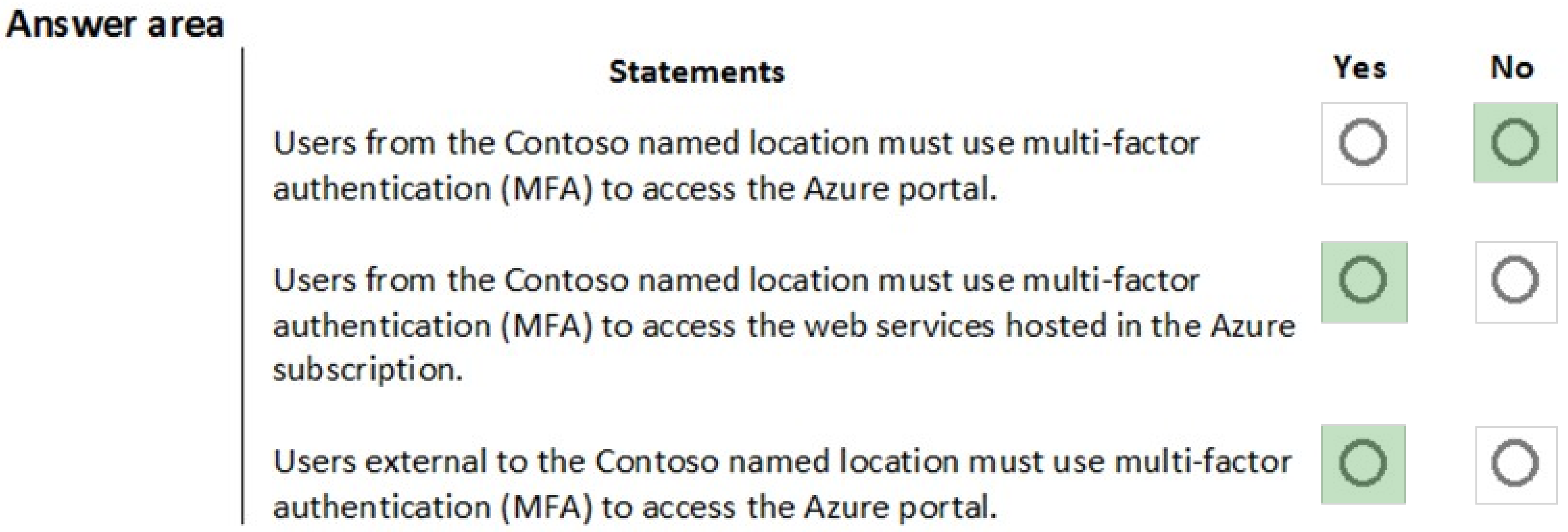
Hot Area:



Answer area

Statements	Yes	No
Users from the Contoso named location must use multi-factor authentication (MFA) to access the Azure portal.	○	○
Users from the Contoso named location must use multi-factor authentication (MFA) to access the web services hosted in the Azure subscription.	○	○
Users external to the Contoso named location must use multi-factor authentication (MFA) to access the Azure portal.	○	○

Correct Answer:



Answer area

Statements	Yes	No
Users from the Contoso named location must use multi-factor authentication (MFA) to access the Azure portal.	○	[✓ ○]
Users from the Contoso named location must use multi-factor authentication (MFA) to access the web services hosted in the Azure subscription.	[✓ ○]	○
Users external to the Contoso named location must use multi-factor authentication (MFA) to access the Azure portal.	[✓ ○]	○

Box 1: No -

The Contoso location is excluded

Box 2: Yes -

Question #26

Topic 1

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

An administrator named Admin1 has access to the following identities:

- An OpenID-enabled user account
- A Hotmail account
- An account in contoso.com
- An account in an Azure AD tenant named fabrikam.com

You plan to use Azure Account Center to transfer the ownership of Sub1 to Admin1.

To which accounts can you transfer the ownership of Sub1?

A. contoso.com only

B. contoso.com, fabrikam.com, and Hotmail only

C. contoso.com and fabrikam.com only

D. contoso.com, fabrikam.com, Hotmail, and OpenID-enabled user account

Correct Answer: *C*

When you transfer billing ownership of your subscription to an account in another Azure AD tenant, you can move the subscription to the new account's tenant. If you do so, all users, groups, or service principals who had role based access (RBAC) to manage subscriptions and its resources lose their access. Only the user in the new account who accepts your transfer request will have access to manage the resources.

Reference:

https://docs.microsoft.com/en-us/azure/billing/billing-subscription-transfer https://docs.microsoft.com/en-us/azure/billing/billing-subscription-transfer#transferring-subscription-to-an-account-in-another-azure-ad-tenant

Question #27 *Topic 1*

Your company plans to create separate subscriptions for each department. Each subscription will be associated to the same Azure Active Directory (Azure AD) tenant.
You need to configure each subscription to have the same role assignments.
What should you use?

A. Azure Security Center

B. Azure Policy

C. Azure AD Privileged Identity Management (PIM)

D. Azure Blueprints

Correct Answer: *D*
Just as a blueprint allows an engineer or an architect to sketch a project's design parameters, Azure Blueprints enables cloud architects and central information technology groups to define a repeatable set of Azure resources that implements and adheres to an organization's standards, patterns, and requirements.
Blueprints are a declarative way to orchestrate the deployment of various resource templates and other artifacts such as:
➾ Role Assignments
➾ Policy Assignments
➾ Azure Resource Manager templates
➾ Resource Groups
Reference:
https://docs.microsoft.com/en-us/azure/governance/blueprints/overview

Topic 2 - Question Set 2

You have an Azure subscription named Sub1. Sub1 contains a virtual network named VNet1 that contains one subnet named Subnet1.
Subnet1 contains an Azure virtual machine named VM1 that runs Ubuntu Server 18.04.
You create a service endpoint for MicrosoftStorage in Subnet1.
You need to ensure that when you deploy Docker containers to VM1, the containers can access Azure Storage resources by using the service endpoint.
What should you do on VM1 before you deploy the container?

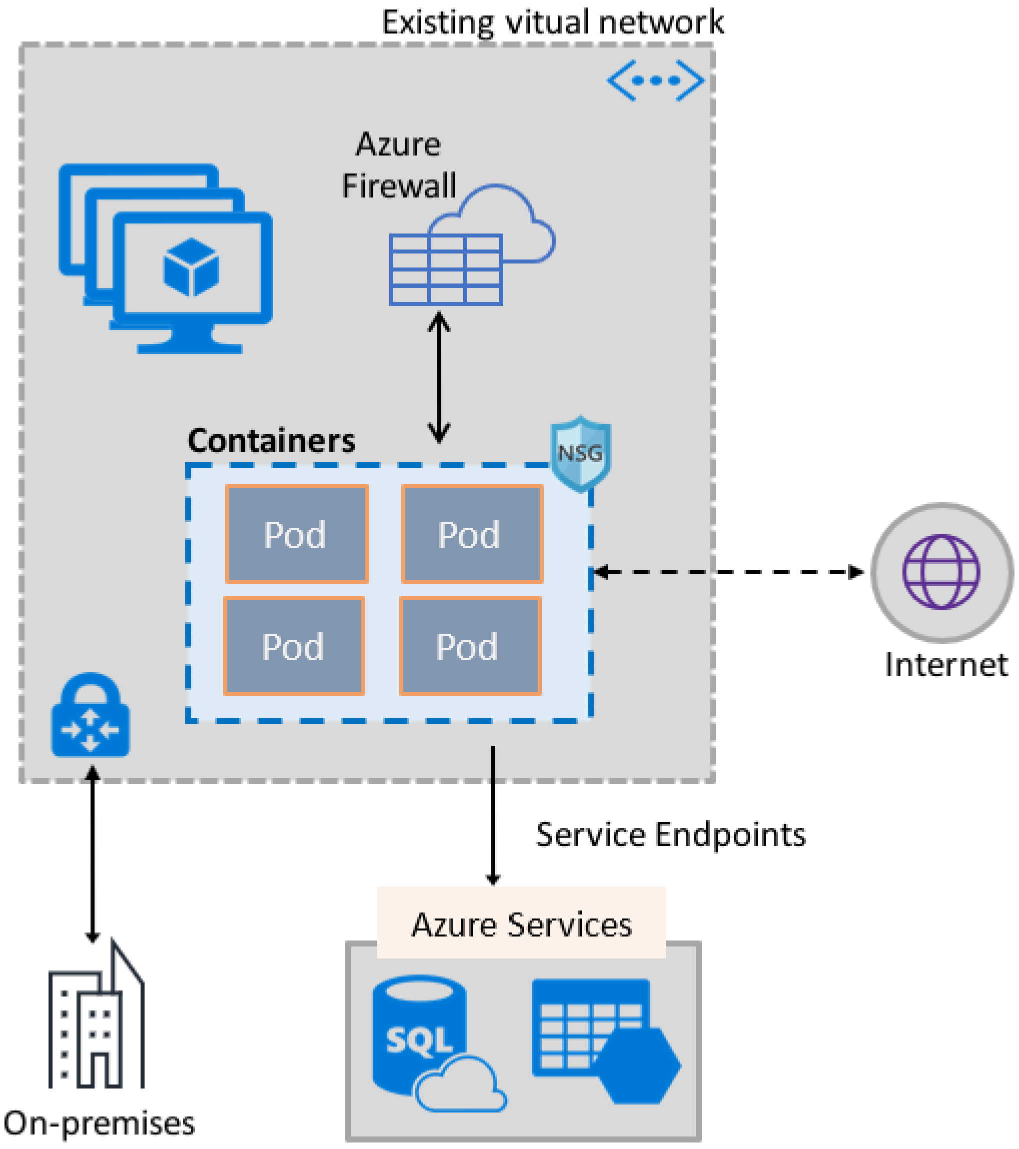
A. Create an application security group and a network security group (NSG).

B. Edit the docker-compose.yml file.

C. Install the container network interface (CNI) plug-in.

Correct Answer: *C*

The Azure Virtual Network container network interface (CNI) plug-in installs in an Azure Virtual Machine. The plug-in supports both Linux and Windows platform.
The plug-in assigns IP addresses from a virtual network to containers brought up in the virtual machine, attaching them to the virtual network, and connecting them directly to other containers and virtual network resources. The plug-in doesn't rely on overlay networks, or routes, for connectivity, and provides the same performance as virtual machines.
The following picture shows how the plug-in provides Azure Virtual Network capabilities to Pods:



References:
https://docs.microsoft.com/en-us/azure/virtual-network/container-networking-overview

Question #2

Topic 2

You have Azure Resource Manager templates that you use to deploy Azure virtual machines.
You need to disable unused Windows features automatically as instances of the virtual machines are provisioned.
What should you use?

A. device configuration policies in Microsoft Intune

B. an Azure Desired State Configuration (DSC) virtual machine extension

C. application security groups

D. Azure Logic Apps

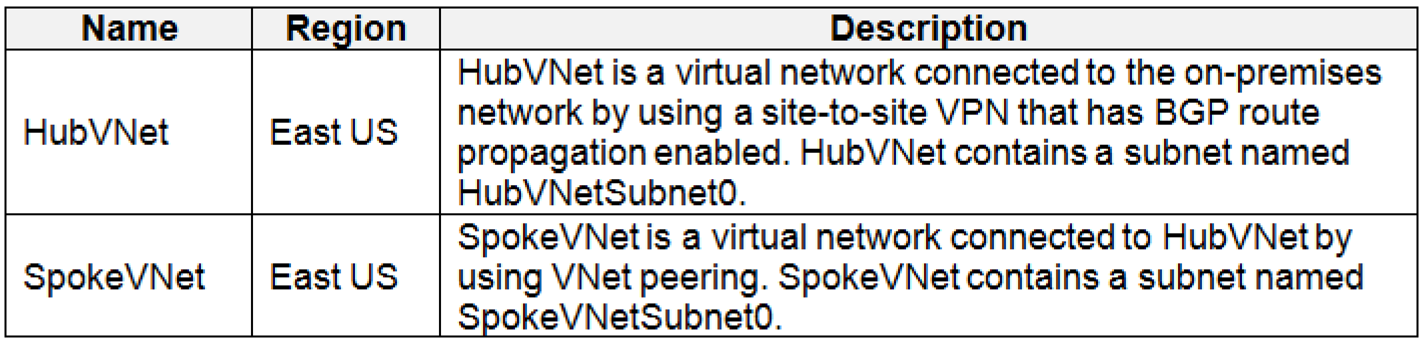
E. security policies in Azure Security Center

F. Azure Advisor

Correct Answer: *B*
You can use Azure Automation State Configuration to manage Azure VMs (both Classic and Resource Manager), on-premises VMs, Linux machines, AWS VMs, and on-premises physical machines.
Note: Azure Automation State Configuration provides a DSC pull server similar to the Windows Feature DSC-Service so that target nodes automatically receive configurations, conform to the desired state, and report back on their compliance. The built-in pull server in Azure Automation eliminates the need to set up and maintain your own pull server. Azure Automation can target virtual or physical Windows or Linux machines, in the cloud or on-premises.
Reference:
https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started

DRAG DROP -

You have an Azure subscription that contains the virtual networks shown in the following table.



Name	Region	Description
HubVNet	East US	HubVNet is a virtual network connected to the on-premises network by using a site-to-site VPN that has BGP route propagation enabled. HubVNet contains a subnet named HubVNetSubnet0.
SpokeVNet	East US	SpokeVNet is a virtual network connected to HubVNet by using VNet peering. SpokeVNet contains a subnet named SpokeVNetSubnet0.

The Azure virtual machines on SpokeVNetSubnet0 can communicate with the computers on the on-premises network.

You plan to deploy an Azure firewall to HubVNet.

You create the following two routing tables:

➾ RT1: Includes a user-defined route that points to the private IP address of the Azure firewall as a next hop address

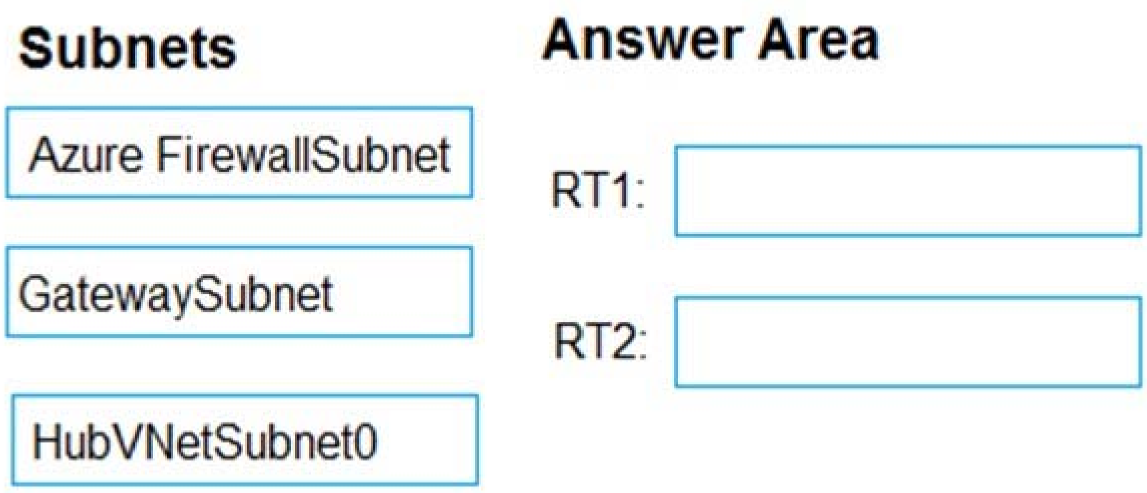
➾ RT2: Disables BGP route propagation and defines the private IP address of the Azure firewall as the default gateway

You need to ensure that traffic between SpokeVNetSubnet0 and the on-premises network flows through the Azure firewall.

To which subnet should you associate each route table? To answer, drag the appropriate subnets to the correct route tables. Each subnet may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Subnets

Azure FirewallSubnet

GatewaySubnet

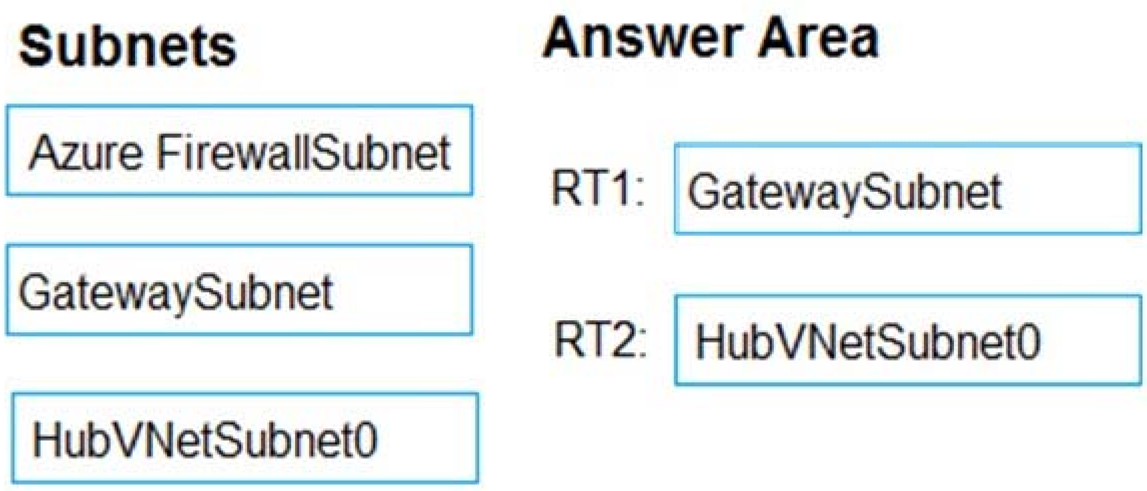
HubVNetSubnet0

Answer Area

RT1:

RT2:

Correct Answer:



Subnets

Azure FirewallSubnet

GatewaySubnet

HubVNetSubnet0

Answer Area

RT1: GatewaySubnet

RT2: HubVNetSubnet0

Question #4 Topic 2

HOTSPOT -

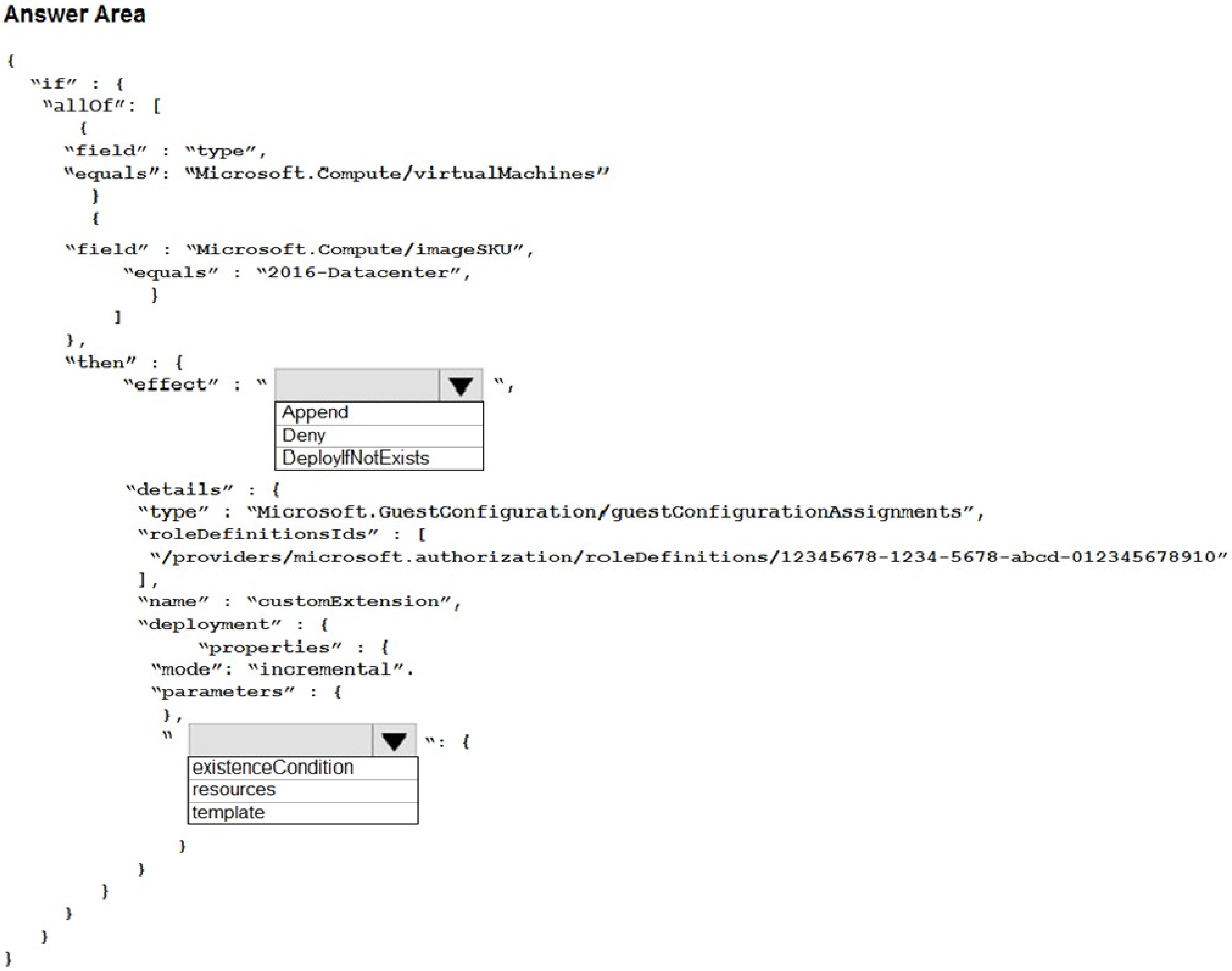
You have an Azure subscription. The subscription contains Azure virtual machines that run Windows Server 2016.

You need to implement a policy to ensure that each virtual machine has a custom antimalware virtual machine extension installed.

How should you complete the policy? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

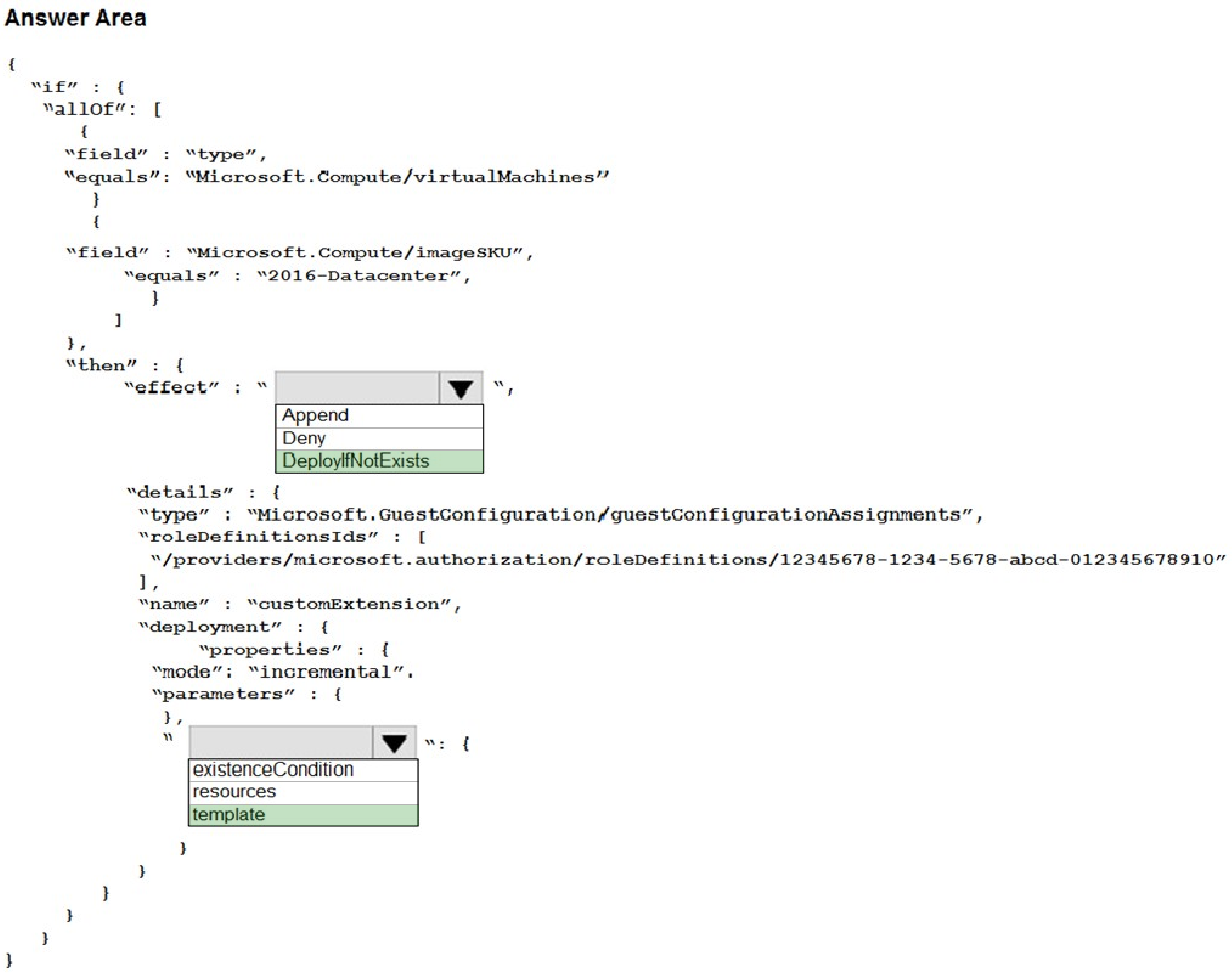
Hot Area:



Answer Area

```
{
  "if" : {
   "allOf": [
      {
    "field" : "type",
    "equals": "Microsoft.Compute/virtualMachines"
       }
       {
    "field" : "Microsoft.Compute/imageSKU",
         "equals" : "2016-Datacenter",
           }
        ]
    },
    "then" : {
         "effect" : "                  ",
                     Append
                     Deny
                     DeployIfNotExists
         "details" : {
          "type" : "Microsoft.GuestConfiguration/guestConfigurationAssignments",
          "roleDefinitionsIds" : [
           "/providers/microsoft.authorization/roleDefinitions/12345678-1234-5678-abcd-012345678910"
          ],
          "name" : "customExtension",
          "deployment" : {
               "properties" : {
           "mode": "incremental".
           "parameters" : {
            },
            "                  ": {
             existenceCondition
             resources
             template
              }
          }
       }
    }
   }
}
```

Correct Answer:



Answer Area

```
{
  "if" : {
   "allOf": [
      {
    "field" : "type",
    "equals": "Microsoft.Compute/virtualMachines"
       }
       {
    "field" : "Microsoft.Compute/imageSKU",
         "equals" : "2016-Datacenter",
           }
         ]
    },
    "then" : {
         "effect" : "                    ",

         "details" : {
          "type" : "Microsoft.GuestConfiguration/guestConfigurationAssignments",
          "roleDefinitionsIds" : [
           "/providers/microsoft.authorization/roleDefinitions/12345678-1234-5678-abcd-012345678910"
          ],
          "name" : "customExtension",
          "deployment" : {
               "properties" : {
           "mode": "incremental".
           "parameters" : {
            },
            "                    ": {

             }
          }
       }
    }
  }
}
```

Box 1: DeployIfNotExists -

DeployIfNotExists executes a template deployment when the condition is met.

Box 2: Template -

The details property of the DeployIfNotExists effects has all the subproperties that define the related resources to match and the template deployment to execute.

Deployment [required]

This property should include the full template deployment as it would be passed to the Microsoft.Resources/deployment

References:

https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects

Question #5 Topic 2

You are configuring an Azure Kubernetes Service (AKS) cluster that will connect to an Azure Container Registry.
You need to use the auto-generated service principal to authenticate to the Azure Container Registry.
What should you create?

A. an Azure Active Directory (Azure AD) group

B. an Azure Active Directory (Azure AD) role assignment

C. an Azure Active Directory (Azure AD) user

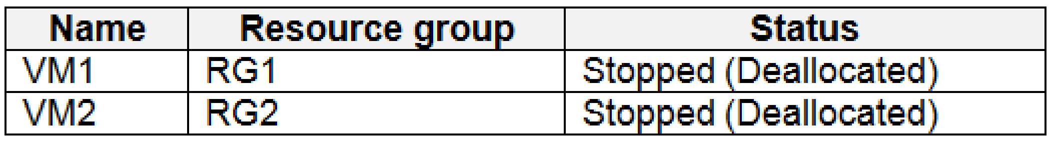
D. a secret in Azure Key Vault

Correct Answer: *B*
When you create an AKS cluster, Azure also creates a service principal to support cluster operability with other Azure resources. You can use this auto-generated service principal for authentication with an ACR registry. To do so, you need to create an Azure AD role assignment that grants the cluster's service principal access to the container registry.
References:
https://docs.microsoft.com/bs-latn-ba/azure/container-registry/container-registry-auth-aks

Question #6 *Topic 2*

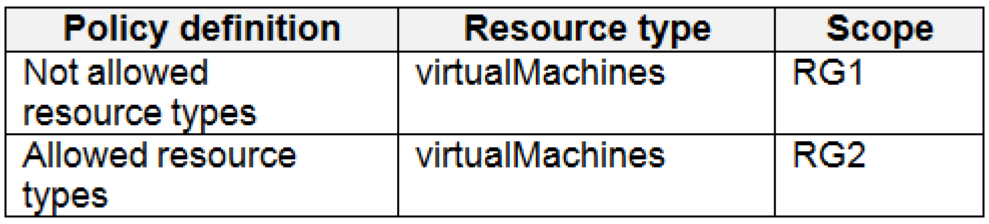
HOTSPOT -

You have an Azure subscription that contains the virtual machines shown in the following table.



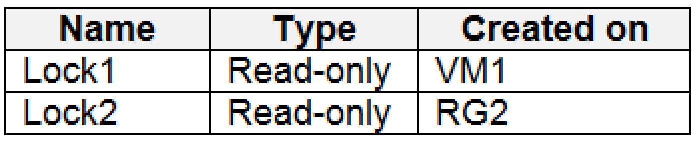
Name	Resource group	Status
VM1	RG1	Stopped (Deallocated)
VM2	RG2	Stopped (Deallocated)

You create the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Not allowed resource types	virtualMachines	RG1
Allowed resource types	virtualMachines	RG2

You create the resource locks shown in the following table.

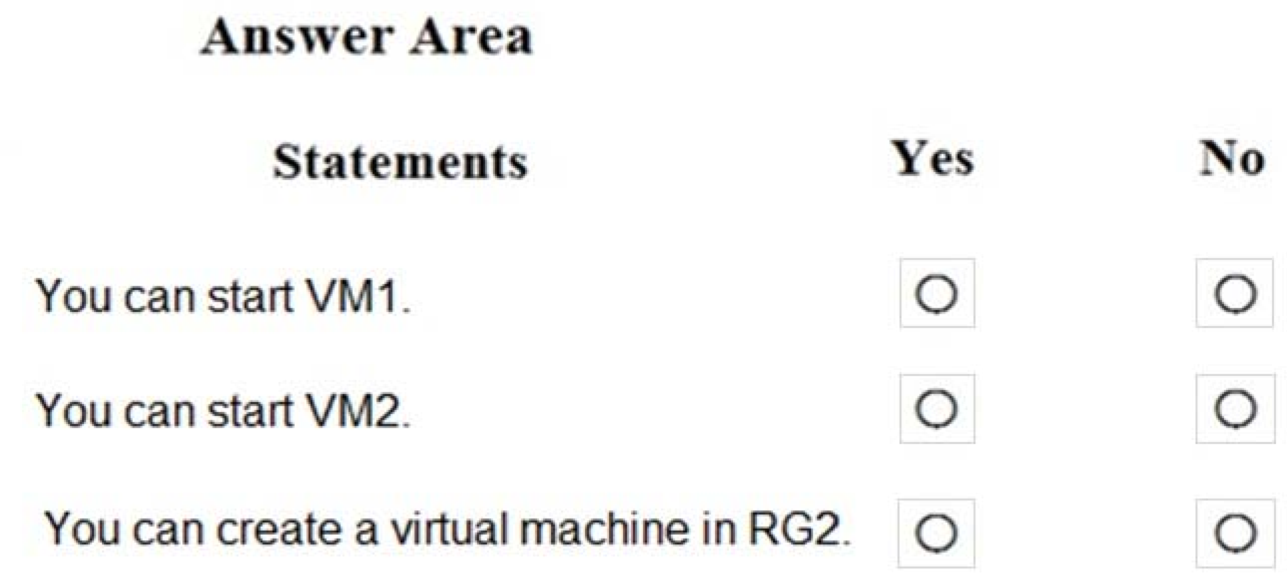


Name	Type	Created on
Lock1	Read-only	VM1
Lock2	Read-only	RG2

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

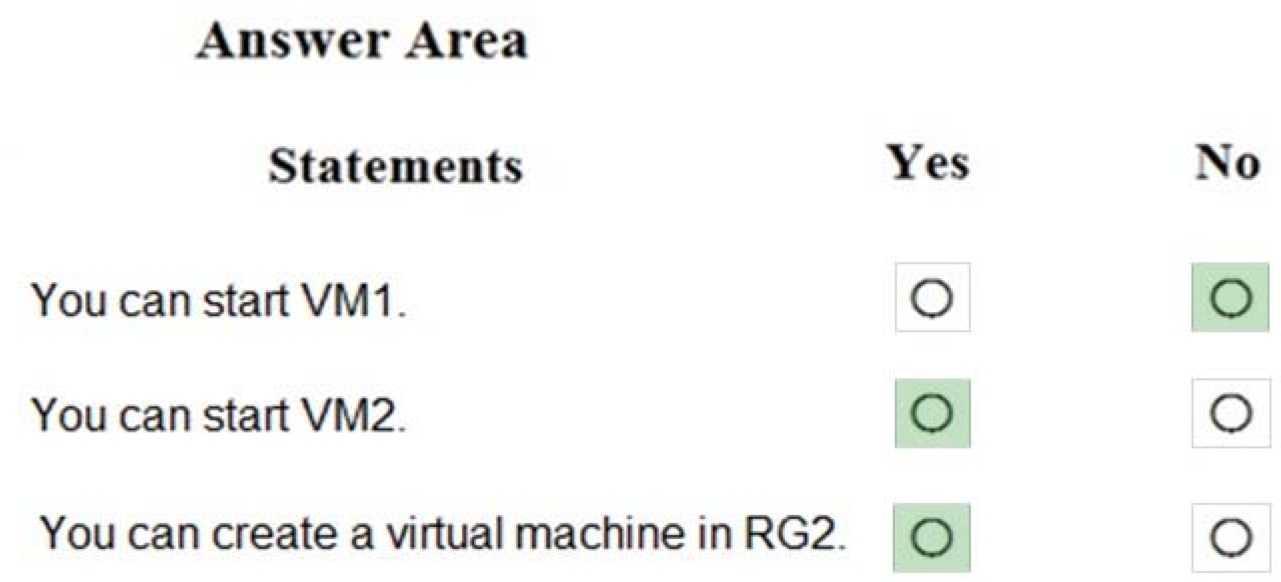
Hot Area:



Answer Area

Statements	Yes	No
You can start VM1.	○	○
You can start VM2.	○	○
You can create a virtual machine in RG2.	○	○

Correct Answer:



Answer Area

Statements	Yes	No
You can start VM1.	○	[✓ ○]
You can start VM2.	[✓ ○]	○
You can create a virtual machine in RG2.	[✓ ○]	○

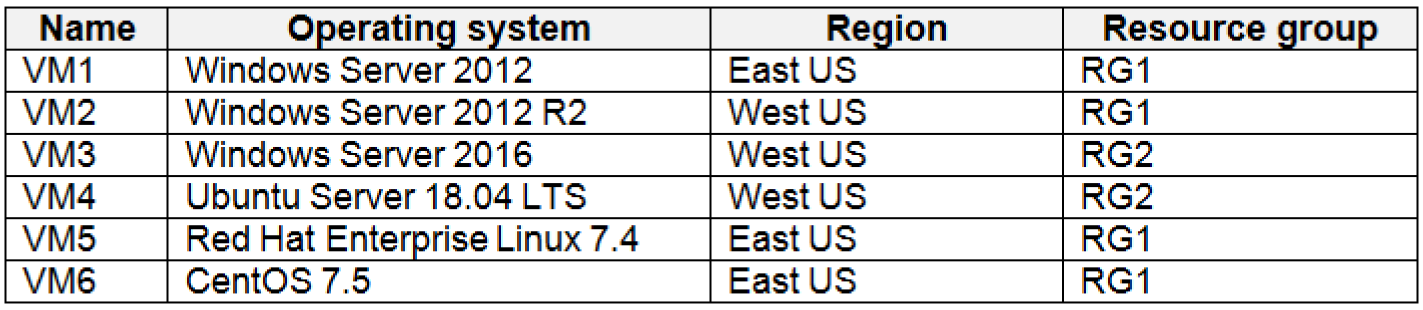
References:

https://docs.microsoft.com/en-us/azure/governance/blueprints/concepts/resource-locking

Question #7 *Topic 2*

HOTSPOT -

You have Azure virtual machines that have Update Management enabled. The virtual machines are configured as shown in the following table.



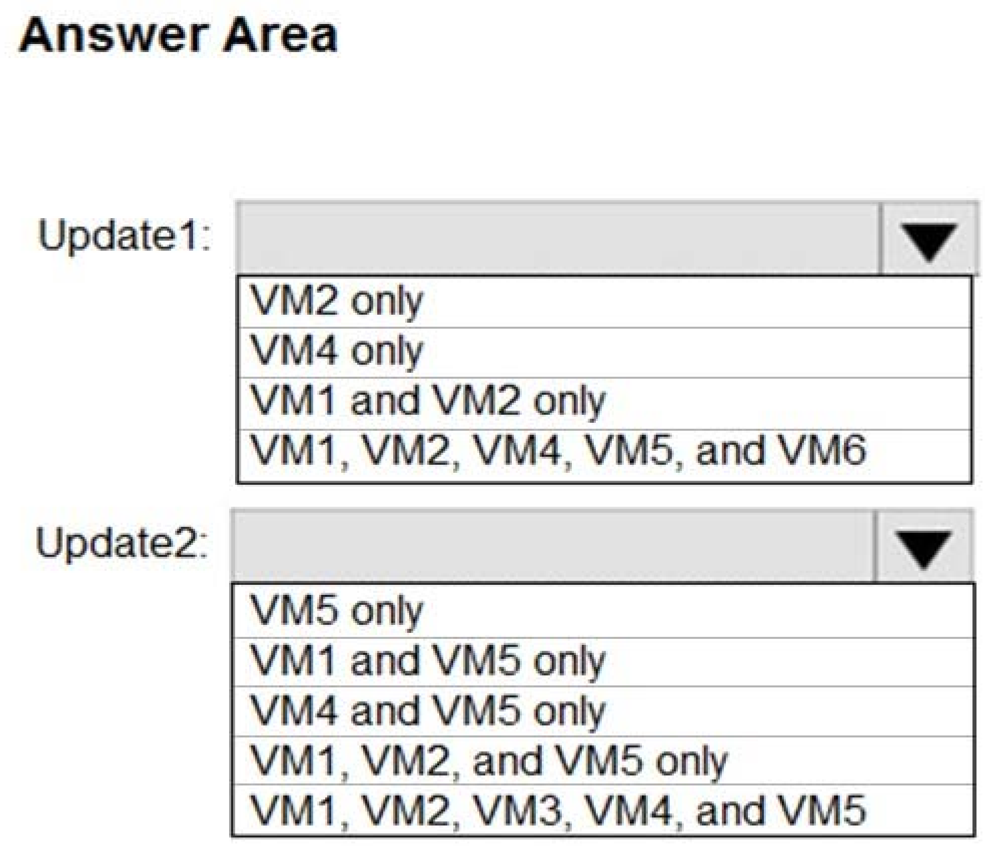
Name	Operating system	Region	Resource group
VM1	Windows Server 2012	East US	RG1
VM2	Windows Server 2012 R2	West US	RG1
VM3	Windows Server 2016	West US	RG2
VM4	Ubuntu Server 18.04 LTS	West US	RG2
VM5	Red Hat Enterprise Linux 7.4	East US	RG1
VM6	CentOS 7.5	East US	RG1

You schedule two update deployments named Update1 and Update2. Update1 updates VM3. Update2 updates VM6.

Which additional virtual machines can be updated by using Update1 and Update2? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

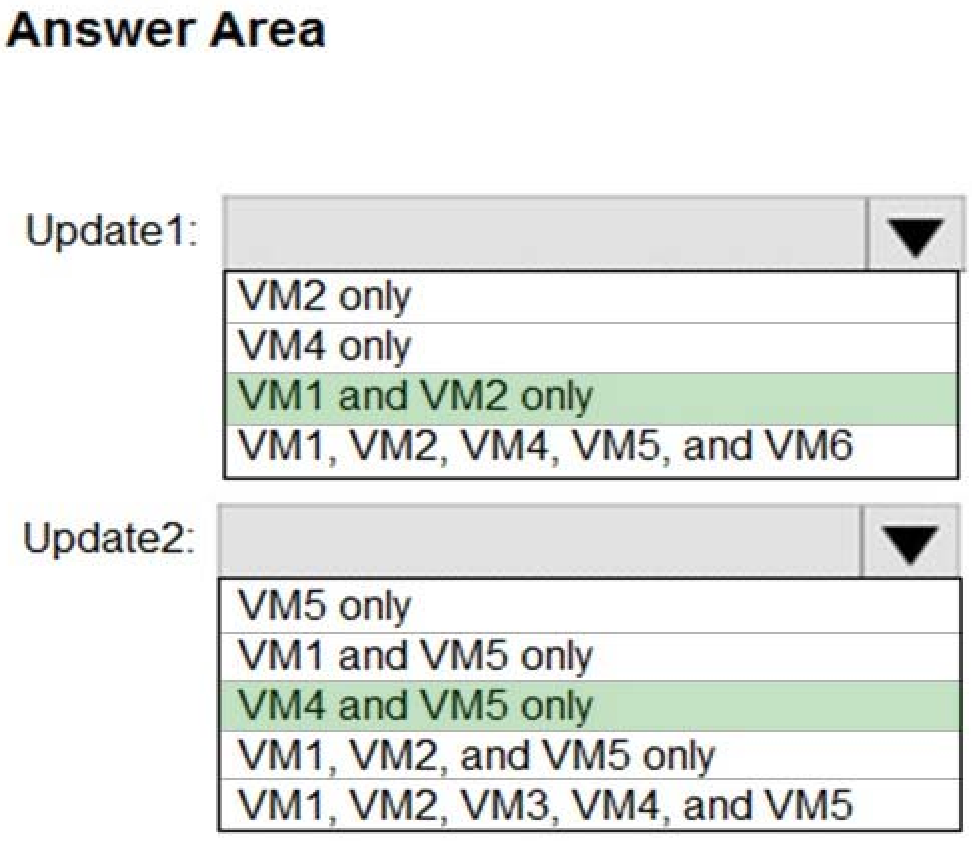


Answer Area

Update1:
- VM2 only
- VM4 only
- VM1 and VM2 only
- VM1, VM2, VM4, VM5, and VM6

Update2:
- VM5 only
- VM1 and VM5 only
- VM4 and VM5 only
- VM1, VM2, and VM5 only
- VM1, VM2, VM3, VM4, and VM5

Correct Answer:



Answer Area

Update1:
- VM2 only
- VM4 only
- [✓ VM1 and VM2 only]
- VM1, VM2, VM4, VM5, and VM6

Update2:
- VM5 only
- VM1 and VM5 only
- [✓ VM4 and VM5 only]
- VM1, VM2, and VM5 only
- VM1, VM2, VM3, VM4, and VM5

Update1: VM1 and VM2 only -

VM3: Windows Server 2016 West US RG2

Update2: VM4 and VM5 only -

VM6: CentOS 7.5 East US RG1 -

For Linux, the machine must have access to an update repository. The update repository can be private or public.

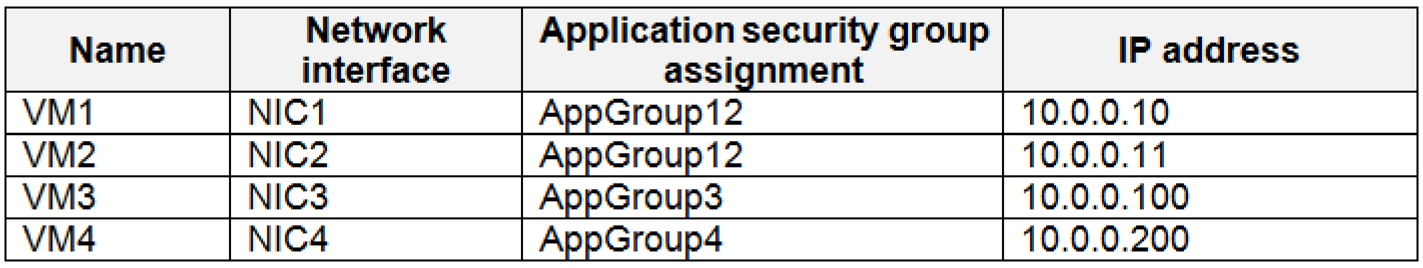
References:

https://docs.microsoft.com/en-us/azure/automation/automation-update-management

HOTSPOT -

You have an Azure subscription named Sub1.

You create a virtual network that contains one subnet. On the subnet, you provision the virtual machines shown in the following table.



Name	Network interface	Application security group assignment	IP address
VM1	NIC1	AppGroup12	10.0.0.10
VM2	NIC2	AppGroup12	10.0.0.11
VM3	NIC3	AppGroup3	10.0.0.100
VM4	NIC4	AppGroup4	10.0.0.200

Currently, you have not provisioned any network security groups (NSGs).

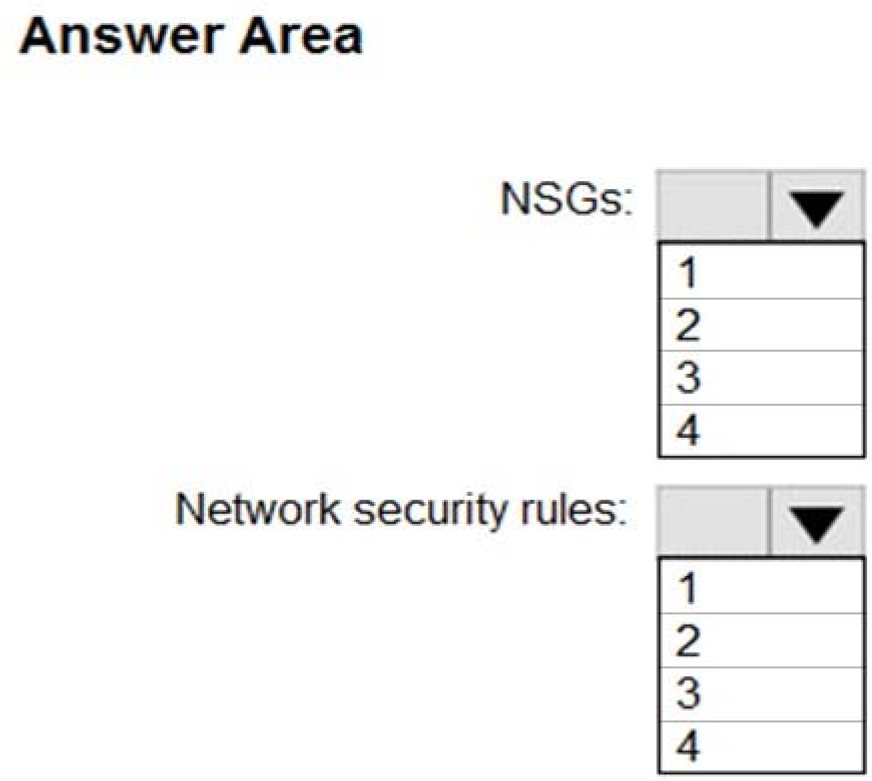
You need to implement network security to meet the following requirements:

- Allow traffic to VM4 from VM3 only.
- Allow traffic from the Internet to VM1 and VM2 only.
- Minimize the number of NSGs and network security rules.

How many NSGs and network security rules should you create? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

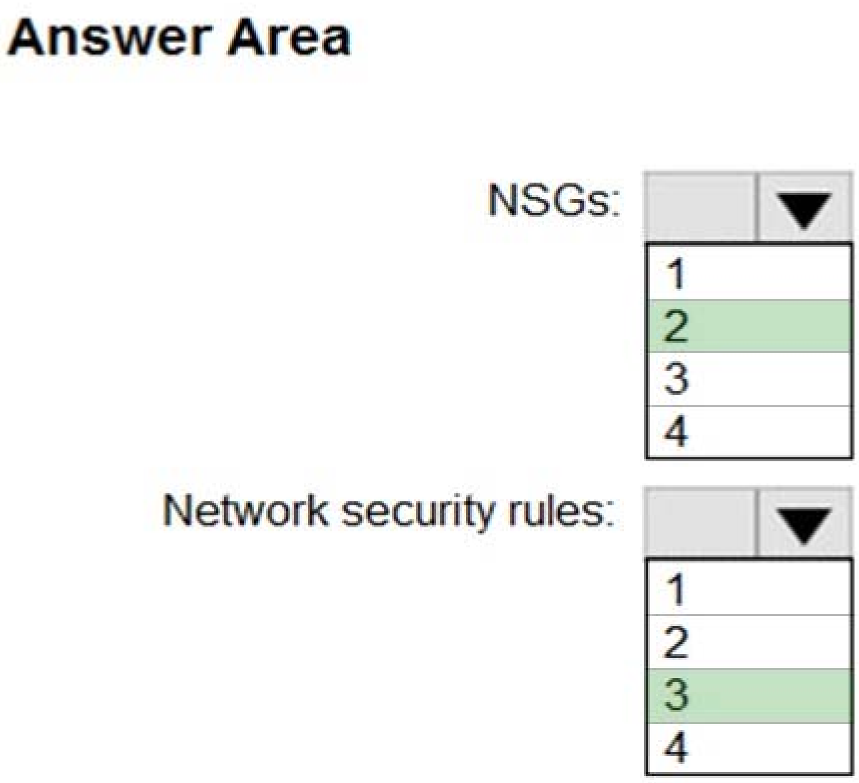


Answer Area

NSGs: 1 2 3 4

Network security rules: 1 2 3 4

Correct Answer:



Answer Area

NSGs: 1 [✓ 2] 3 4

Network security rules: 1 2 [✓ 3] 4

NSGs: 2 -

Network security rules: 3 -

Not 2: You cannot specify multiple service tags or application groups) in a security rule.

References:

https://docs.microsoft.com/en-us/azure/virtual-network/security-overview

Question #9 *Topic 2*

HOTSPOT -

You have an Azure key vault.

You need to delegate administrative access to the key vault to meet the following requirements:

✑ Provide a user named User1 with the ability to set advanced access policies for the key vault.

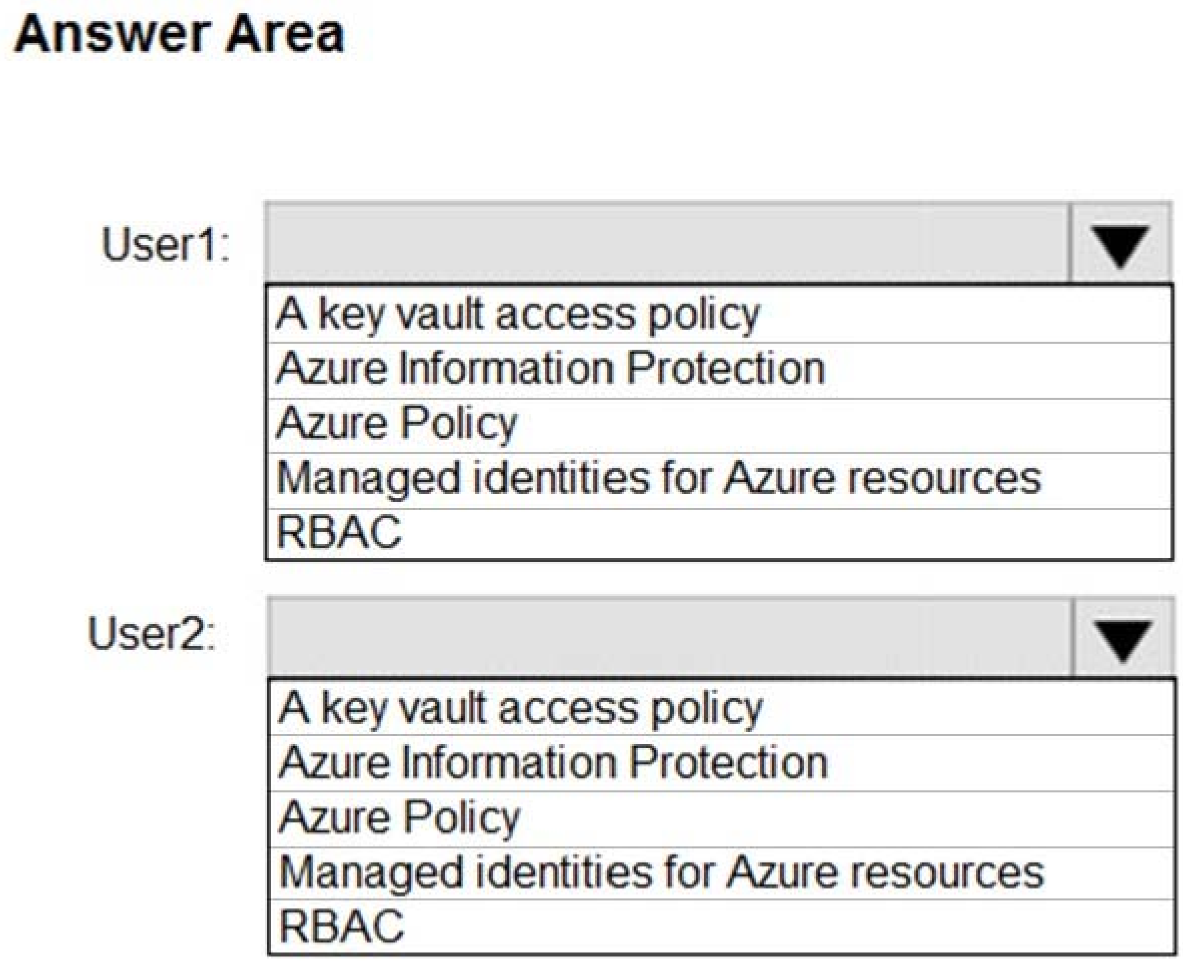
✑ Provide a user named User2 with the ability to add and delete certificates in the key vault.

✑ Use the principle of least privilege.

What should you use to assign access to each user? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

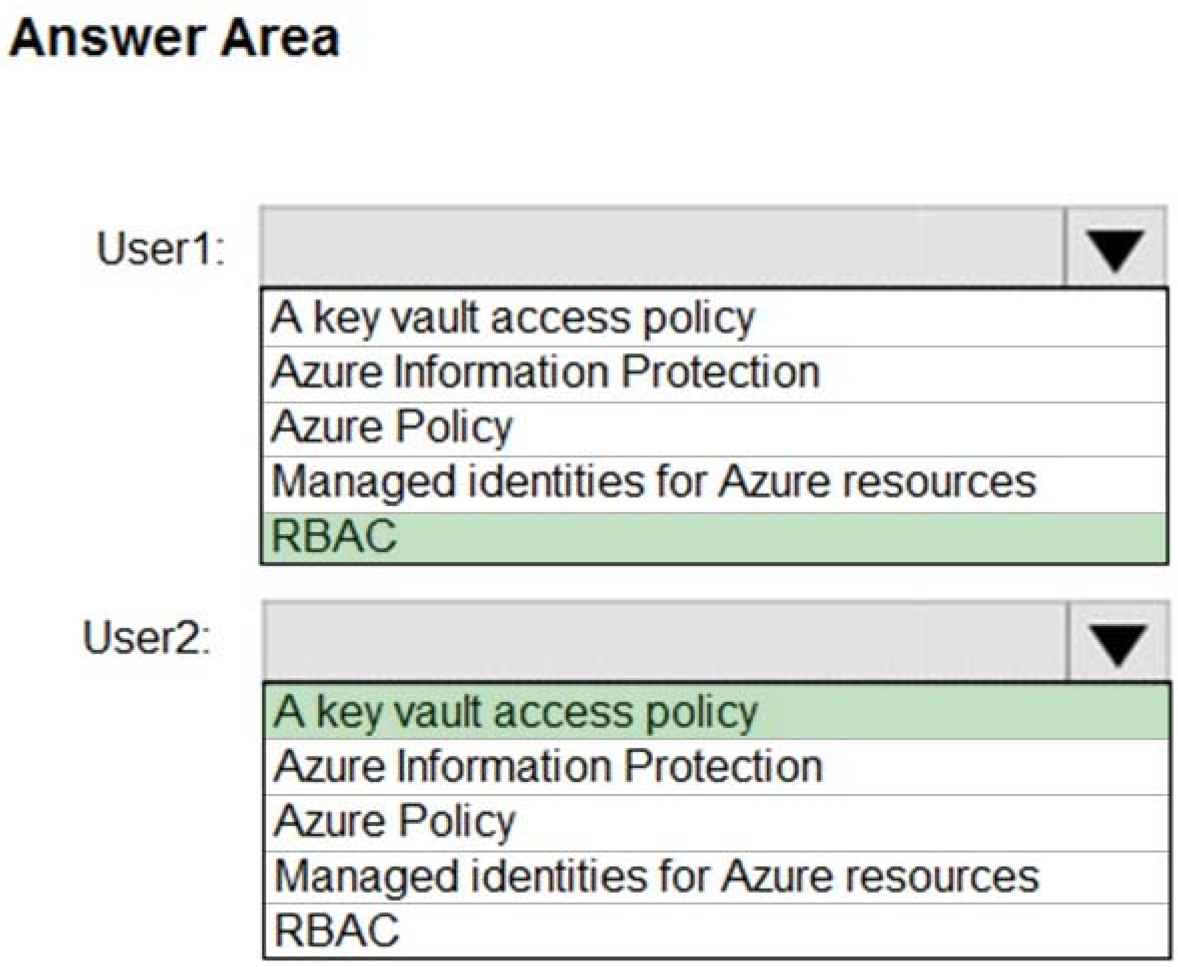


Answer Area

User1:
- A key vault access policy
- Azure Information Protection
- Azure Policy
- Managed identities for Azure resources
- RBAC

User2:
- A key vault access policy
- Azure Information Protection
- Azure Policy
- Managed identities for Azure resources
- RBAC

Correct Answer:



Answer Area

User1:
- A key vault access policy
- Azure Information Protection
- Azure Policy
- Managed identities for Azure resources
- [✓ RBAC]

User2:
- [✓ A key vault access policy]
- Azure Information Protection
- Azure Policy
- Managed identities for Azure resources
- RBAC

User1: RBAC -

RBAC is used as the Key Vault access control mechanism for the management plane. It would allow a user with the proper identity to:

✑ set Key Vault access policies

✑ create, read, update, and delete key vaults

✑ set Key Vault tags

Note: Role-based access control (RBAC) is a system that provides fine-grained access management of Azure resources. Using RBAC, you can segregate duties within your team and grant only the amount of access to users that they need to perform their jobs.

User2: A key vault access policy

A key vault access policy is the access control mechanism to get access to the key vault data plane. Key Vault access policies grant permissions separately to keys, secrets, and certificates.

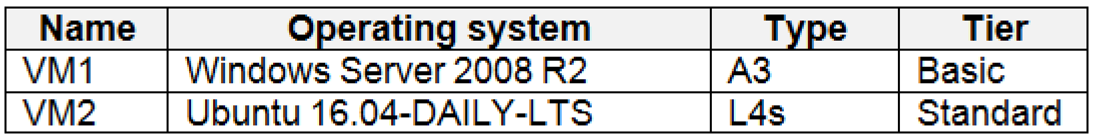
References:

https://docs.microsoft.com/en-us/azure/key-vault/key-vault-secure-your-key-vault

Question #10 *Topic 2*

HOTSPOT -

You have two Azure virtual machines in the East US2 region as shown in the following table.



Name	Operating system	Type	Tier
VM1	Windows Server 2008 R2	A3	Basic
VM2	Ubuntu 16.04-DAILY-LTS	L4s	Standard

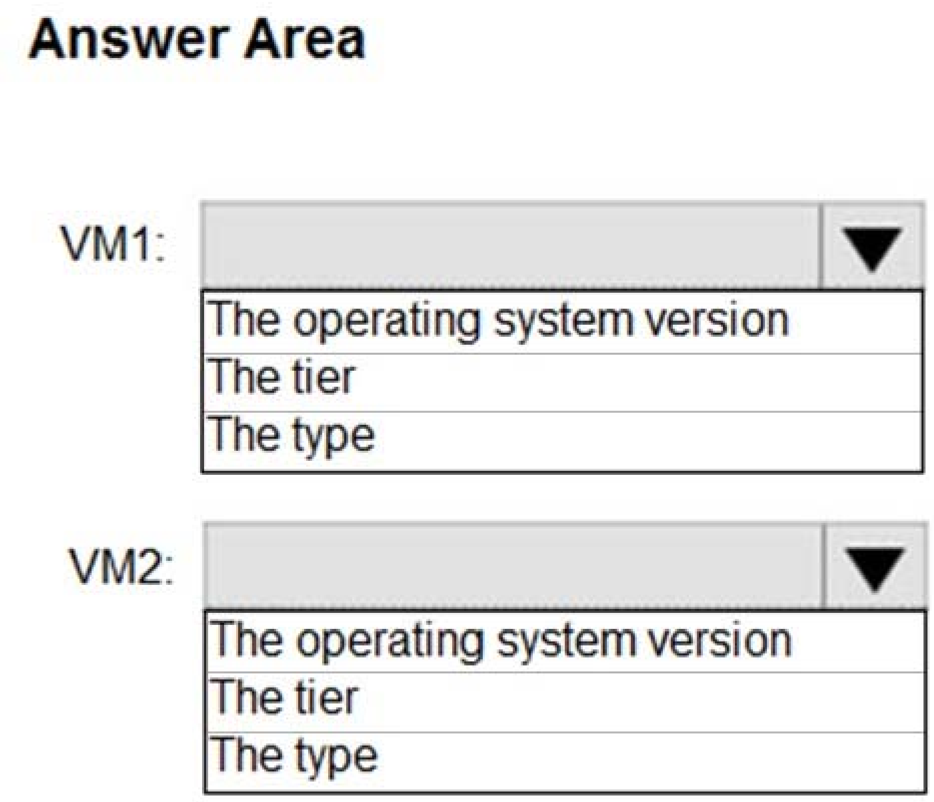
You deploy and configure an Azure Key vault.

You need to ensure that you can enable Azure Disk Encryption on VM1 and VM2.

What should you modify on each virtual machine? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

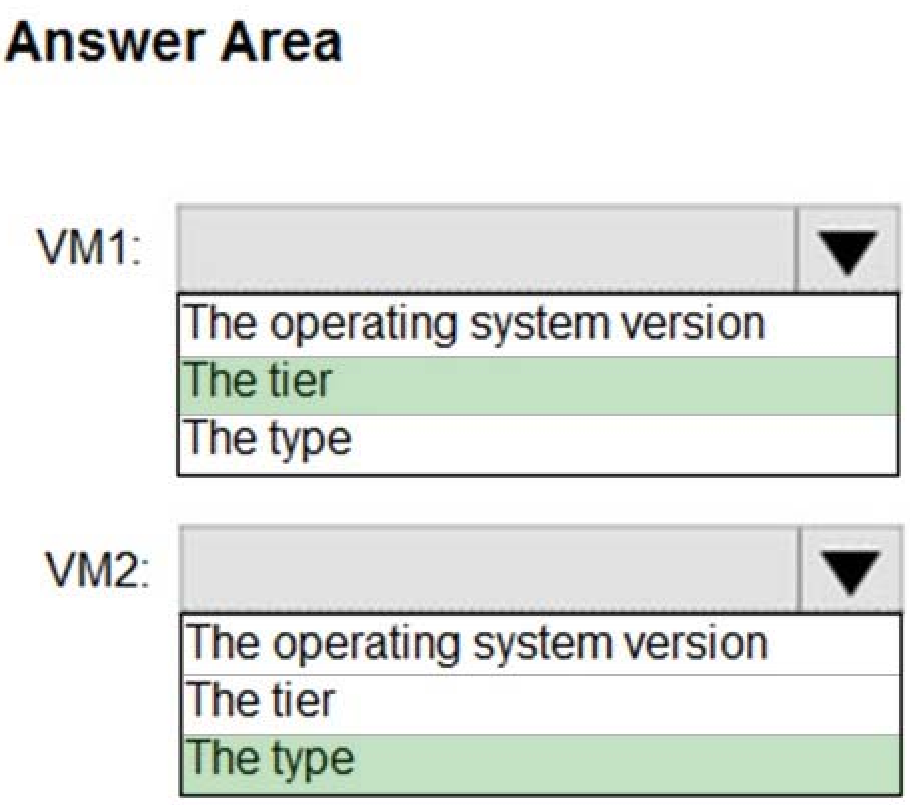


Answer Area

VM1:
- The operating system version
- The tier
- The type

VM2:
- The operating system version
- The tier
- The type

Correct Answer:



Answer Area

VM1:
- The operating system version
- [✓ The tier]
- The type

VM2:
- The operating system version
- The tier
- [✓ The type]

VM1: The Tier -

The Tier needs to be upgraded to standard.

Disk Encryption for Windows and Linux IaaS VMs is in General Availability in all Azure public regions and Azure Government regions for Standard VMs and VMs with Azure Premium Storage.

VM2: The type -

Need to change the VMtype to any of A, D, DS, G, GS, F, and so on, series IaaS VMs.

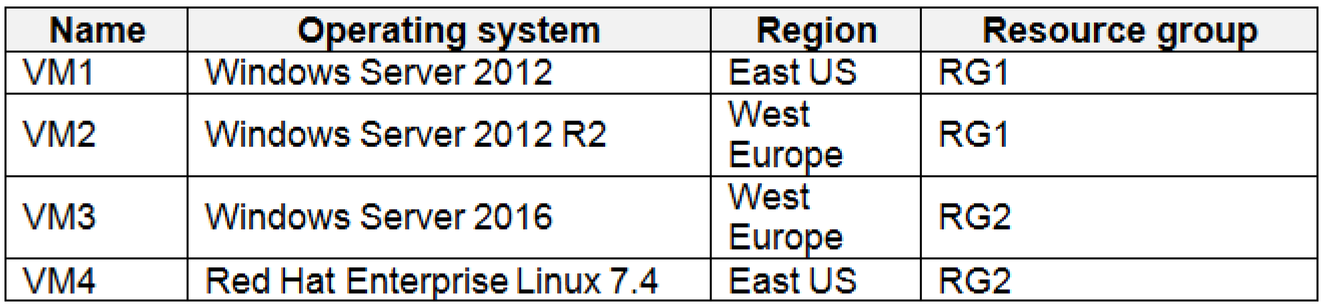
Not the operating system version: Ubuntu 16.04 is supported.

References:

https://docs.microsoft.com/en-us/azure/security/azure-security-disk-encryption-overview https://docs.microsoft.com/en-us/azure/security/azure-security-disk-encryption-faq#bkmk_LinuxOSSupport

Question #11 *Topic 2*

You have an Azure virtual machines shown in the following table.



Name	Operating system	Region	Resource group
VM1	Windows Server 2012	East US	RG1
VM2	Windows Server 2012 R2	West Europe	RG1
VM3	Windows Server 2016	West Europe	RG2
VM4	Red Hat Enterprise Linux 7.4	East US	RG2

You create an Azure Log Analytics workspace named Analytics1 in RG1 in the East US region.

Which virtual machines can be enrolled in Analytics1?

A. VM1 only

B. VM1, VM2, and VM3 only

C. VM1, VM2, VM3, and VM4

D. VM1 and VM4 only

Correct Answer: *A*

Note: Create a workspace -

➾ In the Azure portal, click All services. In the list of resources, type Log Analytics. As you begin typing, the list filters based on your input.

Select Log Analytics.

Click Create, and then select choices for the following items:

▪

Provide a name for the new Log Analytics workspace, such as DefaultLAWorkspace. OMS workspaces are now referred to as Log Analytics workspaces.

Select a Subscription to link to by selecting from the drop-down list if the default selected is not appropriate.

For Resource Group, select an existing resource group that contains one or more Azure virtual machines.

Select the Location your VMs are deployed to. For additional information, see which regions Log Analytics is available in.

Incorrect Answers:

B, C: A Log Analytics workspace provides a geographic location for data storage. VM2 and VM3 are at a different location.

D: VM4 is a different resource group.

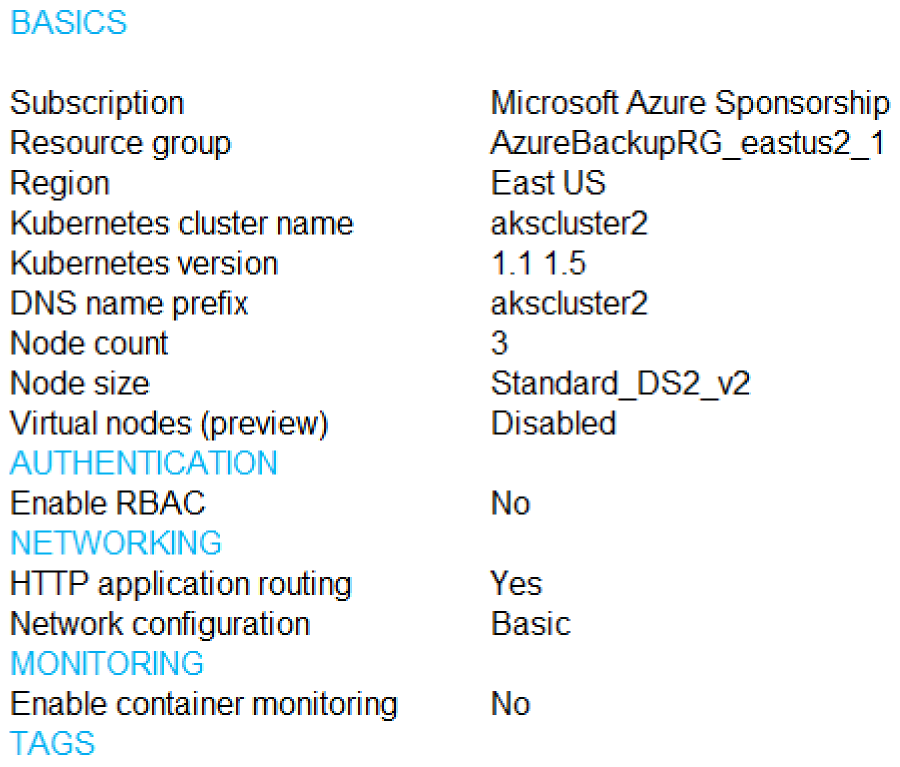
References:

https://docs.microsoft.com/en-us/azure/azure-monitor/platform/manage-access

Question #12 *Topic 2*

Exhibit -

You are testing an Azure Kubernetes Service (AKS) cluster. The cluster is configured as shown in the exhibit. (Click the tab.)



BASICS

Subscription	Microsoft Azure Sponsorship
Resource group	AzureBackupRG_eastus2_1
Region	East US
Kubernetes cluster name	akscluster2
Kubernetes version	1.1 1.5
DNS name prefix	akscluster2
Node count	3
Node size	Standard_DS2_v2
Virtual nodes (preview)	Disabled
AUTHENTICATION	
Enable RBAC	No
NETWORKING	
HTTP application routing	Yes
Network configuration	Basic
MONITORING	
Enable container monitoring	No
TAGS	

You plan to deploy the cluster to production. You disable HTTP application routing.

You need to implement application routing that will provide reverse proxy and TLS termination for AKS services by using a single IP address.

What should you do?

A. Create an AKS Ingress controller.

B. Install the container network interface (CNI) plug-in.

C. Create an Azure Standard Load Balancer.

D. Create an Azure Basic Load Balancer.

Correct Answer: *A*

An ingress controller is a piece of software that provides reverse proxy, configurable traffic routing, and TLS termination for Kubernetes services.

References:

https://docs.microsoft.com/en-us/azure/aks/ingress-tls

Question #13 *Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You use Azure Security Center for the centralized policy management of three Azure subscriptions.
You use several policy definitions to manage the security of the subscriptions.
You need to deploy the policy definitions as a group to all three subscriptions.
Solution: You create a policy definition and assignments that are scoped to resource groups.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
References:
https://4sysops.com/archives/apply-governance-policy-to-multiple-azure-subscriptions-with-management-groups/

Question #14 *Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You use Azure Security Center for the centralized policy management of three Azure subscriptions.
You use several policy definitions to manage the security of the subscriptions.
You need to deploy the policy definitions as a group to all three subscriptions.
Solution: You create a resource graph and an assignment that is scoped to a management group.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *A*
References:
https://4sysops.com/archives/apply-governance-policy-to-multiple-azure-subscriptions-with-management-groups/

Question #15 Topic 2

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Subscription. The subscription contains 50 virtual machines that run Windows Server 2012 R2 or Windows Server 2016.
You need to deploy Microsoft Antimalware to the virtual machines.
Solution: You add an extension to each virtual machine.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *A*
You can use Visual Studio to enable and configure the Microsoft Antimalware service. This entails selecting Microsoft Antimalware extension from the dropdown list under Installed Extensions and click Add to configure with default antimalware configuration.
References:
https://docs.microsoft.com/en-us/azure/security/fundamentals/antimalware

Question #16 Topic 2

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You have an Azure Subscription. The subscription contains 50 virtual machines that run Windows Server 2012 R2 or Windows Server 2016.
You need to deploy Microsoft Antimalware to the virtual machines.
Solution: You connect to each virtual machine and add a Windows feature.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
Microsoft Antimalware is deployed as an extension and not a feature.
References:
https://docs.microsoft.com/en-us/azure/security/fundamentals/antimalware

Question #17 *Topic 2*

From Azure Security Center, you create a custom alert rule.
You need to configure which users will receive an email message when the alert is triggered.
What should you do?

A. From Azure Monitor, create an action group.

B. From Security Center, modify the Security policy settings of the Azure subscription.

C. From Azure Active Directory (Azure AD), modify the members of the Security Reader role group.

D. From Security Center, modify the alert rule.

Correct Answer: *A*
Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/action-groups

Question #18 *Topic 2*

You are configuring and securing a network environment.
You deploy an Azure virtual machine named VM1 that is configured to analyze network traffic.
You need to ensure that all network traffic is routed through VM1.
What should you configure?

A. a system route

B. a network security group (NSG)

C. a user-defined route

Correct Answer: *C*
Although the use of system routes facilitates traffic automatically for your deployment, there are cases in which you want to control the routing of packets through a virtual appliance. You can do so by creating user defined routes that specify the next hop for packets flowing to a specific subnet to go to your virtual appliance instead, and enabling IP forwarding for the VM running as the virtual appliance.

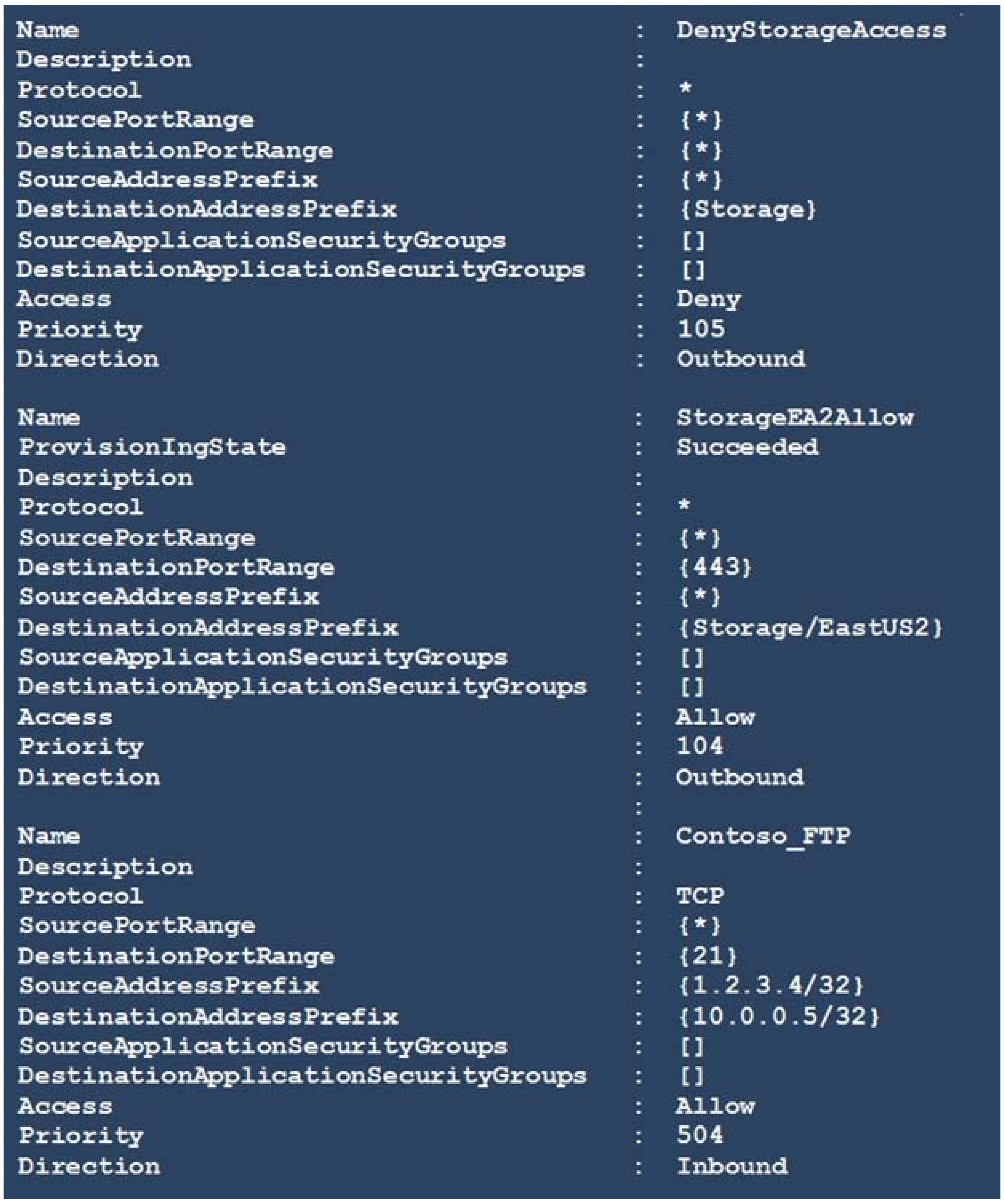
Note: User Defined Routes -
For most environments you will only need the system routes already defined by Azure. However, you may need to create a route table and add one or more routes in specific cases, such as:
✑ Force tunneling to the Internet via your on-premises network.
✑ Use of virtual appliances in your Azure environment.
✑ In the scenarios above, you will have to create a route table and add user defined routes to it.
Reference:
https://github.com/uglide/azure-content/blob/master/articles/virtual-network/virtual-networks-udr-overview.md

Question #19 *Topic 2*

HOTSPOT -

You have a network security group (NSG) bound to an Azure subnet.

You run Get-AzureRmNetworkSecurityRuleConfig and receive the output shown in the following exhibit.

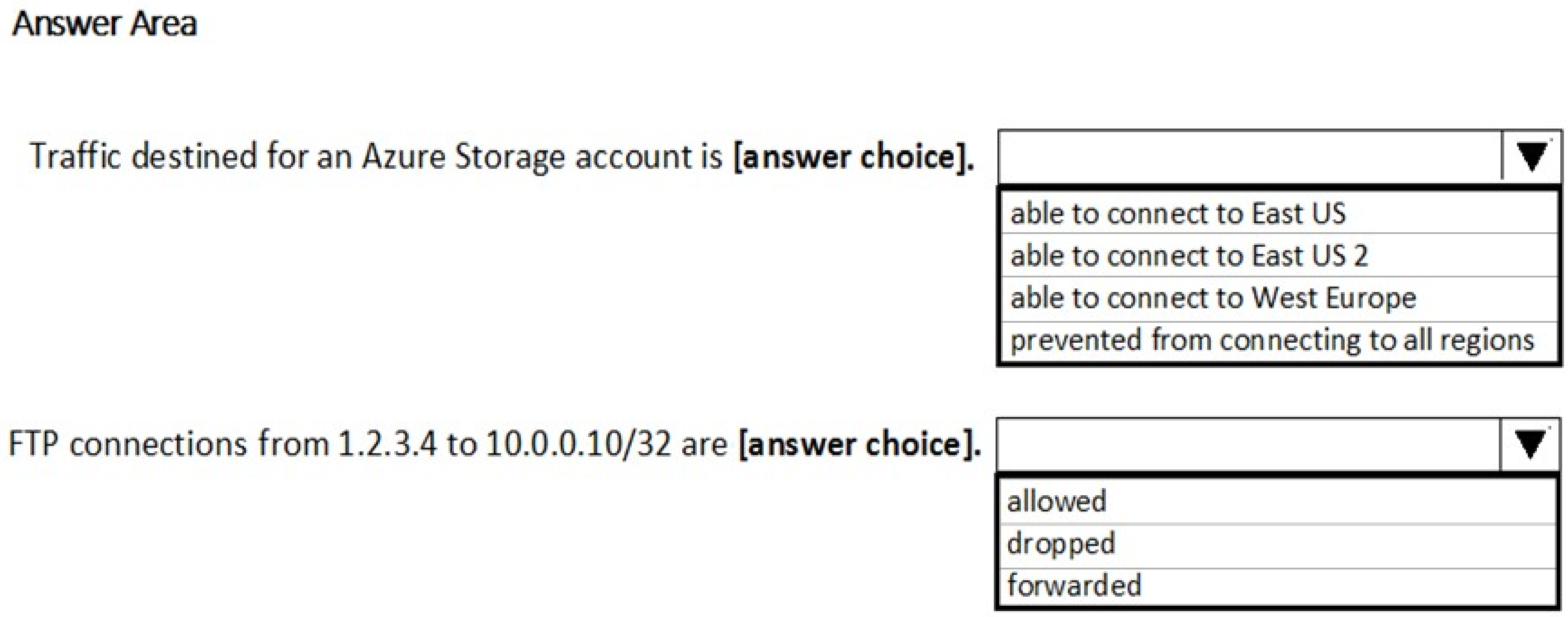


```
Name                                  :  DenyStorageAccess
Description                           :
Protocol                              :  *
SourcePortRange                       :  {*}
DestinationPortRange                  :  {*}
SourceAddressPrefix                   :  {*}
DestinationAddressPrefix              :  {Storage}
SourceApplicationSecurityGroups       :  []
DestinationApplicationSecurityGroups  :  []
Access                                :  Deny
Priority                              :  105
Direction                             :  Outbound

Name                                  :  StorageEA2Allow
ProvisionIngState                     :  Succeeded
Description                           :
Protocol                              :  *
SourcePortRange                       :  {*}
DestinationPortRange                  :  {443}
SourceAddressPrefix                   :  {*}
DestinationAddressPrefix              :  {Storage/EastUS2}
SourceApplicationSecurityGroups       :  []
DestinationApplicationSecurityGroups  :  []
Access                                :  Allow
Priority                              :  104
Direction                             :  Outbound
                                      :
Name                                  :  Contoso_FTP
Description                           :
Protocol                              :  TCP
SourcePortRange                       :  {*}
DestinationPortRange                  :  {21}
SourceAddressPrefix                   :  {1.2.3.4/32}
DestinationAddressPrefix              :  {10.0.0.5/32}
SourceApplicationSecurityGroups       :  []
DestinationApplicationSecurityGroups  :  []
Access                                :  Allow
Priority                              :  504
Direction                             :  Inbound
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

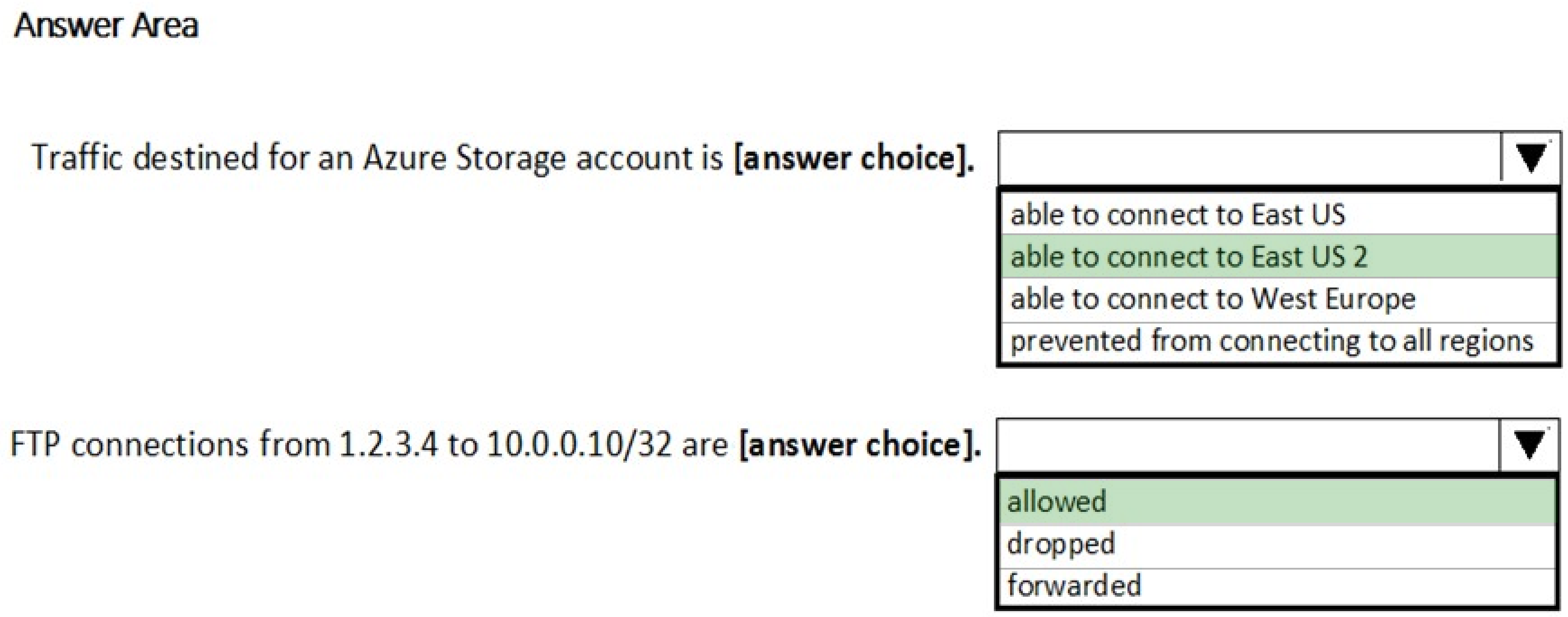
Traffic destined for an Azure Storage account is **[answer choice].**

▼
able to connect to East US
able to connect to East US 2
able to connect to West Europe
prevented from connecting to all regions

FTP connections from 1.2.3.4 to 10.0.0.10/32 are **[answer choice].**

▼
allowed
dropped
forwarded

Correct Answer:



Answer Area

Traffic destined for an Azure Storage account is **[answer choice].**

- able to connect to East US
- [✓ able to connect to East US 2]
- able to connect to West Europe
- prevented from connecting to all regions

FTP connections from 1.2.3.4 to 10.0.0.10/32 are **[answer choice].**

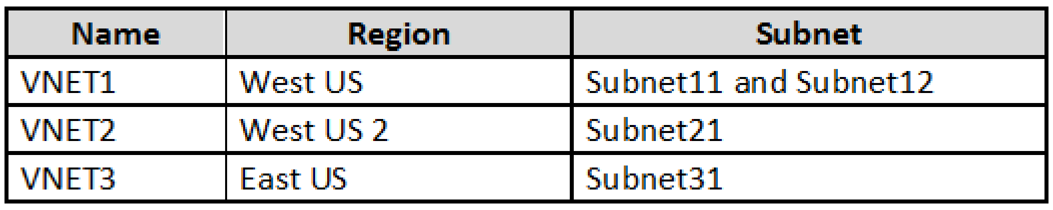
- [✓ allowed]
- dropped
- forwarded

Box 1: able to connect to East US 2
The StorageEA2Allow has DestinationAddressPrefix {Storage/EastUS2}

Box 2: allowed -
TCP Port 21 controls the FTP session. Contoso_FTP has SourceAddressPrefix {1.2.3.4/32} and DestinationAddressPrefix {10.0.0.5/32}
Note:
The Get-AzureRmNetworkSecurityRuleConfig cmdlet gets a network security rule configuration for an Azure network security group.
Security rules in network security groups enable you to filter the type of network traffic that can flow in and out of virtual network subnets and network interfaces.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/manage-network-security-group

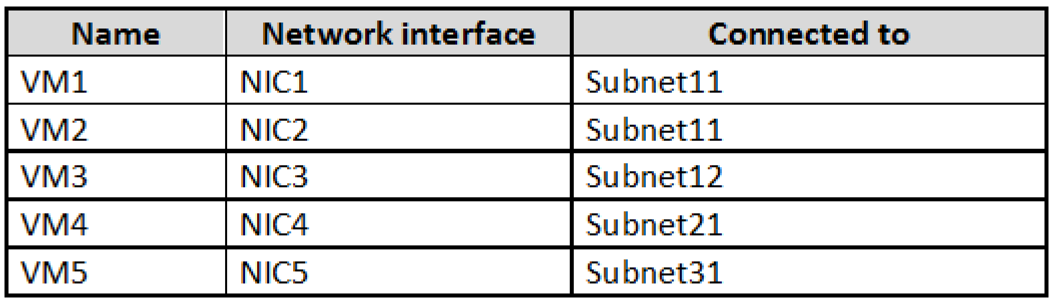
Question #20 *Topic 2*

You have an Azure subscription that contains the virtual networks shown in the following table.



Name	Region	Subnet
VNET1	West US	Subnet11 and Subnet12
VNET2	West US 2	Subnet21
VNET3	East US	Subnet31

The subscription contains the virtual machines shown in the following table.



Name	Network interface	Connected to
VM1	NIC1	Subnet11
VM2	NIC2	Subnet11
VM3	NIC3	Subnet12
VM4	NIC4	Subnet21
VM5	NIC5	Subnet31

On NIC1, you configure an application security group named ASG1.

On which other network interfaces can you configure ASG1?

A. NIC2 only

B. NIC2, NIC3, NIC4, and NIC5

C. NIC2 and NIC3 only

D. NIC2, NIC3, and NIC4 only

Correct Answer: *C*

Only network interfaces in NVET1, which consists of Subnet11 and Subnet12, can be configured in ASG1, as all network interfaces assigned to an application security group have to exist in the same virtual network that the first network interface assigned to the application security group is in.

Reference:

https://azure.microsoft.com/es-es/blog/applicationsecuritygroups/

Question #21 *Topic 2*

You have 15 Azure virtual machines in a resource group named RG1.

All virtual machines run identical applications.

You need to prevent unauthorized applications and malware from running on the virtual machines.

What should you do?

A. Apply an Azure policy to RG1.

B. From Azure Security Center, configure adaptive application controls.

C. Configure Azure Active Directory (Azure AD) Identity Protection.

D. Apply a resource lock to RG1.

Correct Answer: *B*

Adaptive application control is an intelligent, automated end-to-end application whitelisting solution from Azure Security Center. It helps you control which applications can run on your Azure and non-Azure VMs (Windows and Linux), which, among other benefits, helps harden your VMs against malware. Security

Center uses machine learning to analyze the applications running on your VMs and helps you apply the specific whitelisting rules using this intelligence.

Reference:

https://docs.microsoft.com/en-us/azure/security-center/security-center-adaptive-application

Question #22 Topic 2

You plan to deploy Azure container instances.

You have a containerized application that validates credit cards. The application is comprised of two containers: an application container and a validation container.

The application container is monitored by the validation container. The validation container performs security checks by making requests to the application container and waiting for responses after every transaction.

You need to ensure that the application container and the validation container are scheduled to be deployed together. The containers must communicate to each other only on ports that are not externally exposed.

What should you include in the deployment?

A. application security groups

B. network security groups (NSGs)

C. management groups

D. container groups

Correct Answer: *D*

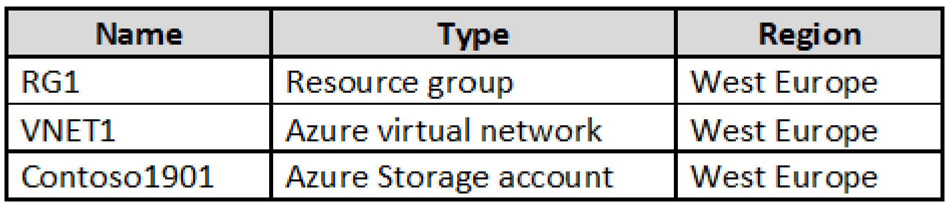
Azure Container Instances supports the deployment of multiple containers onto a single host using a container group. A container group is useful when building an application sidecar for logging, monitoring, or any other configuration where a service needs a second attached process.

Reference:

https://docs.microsoft.com/en-us/azure/container-instances/container-instances-container-groups

HOTSPOT -

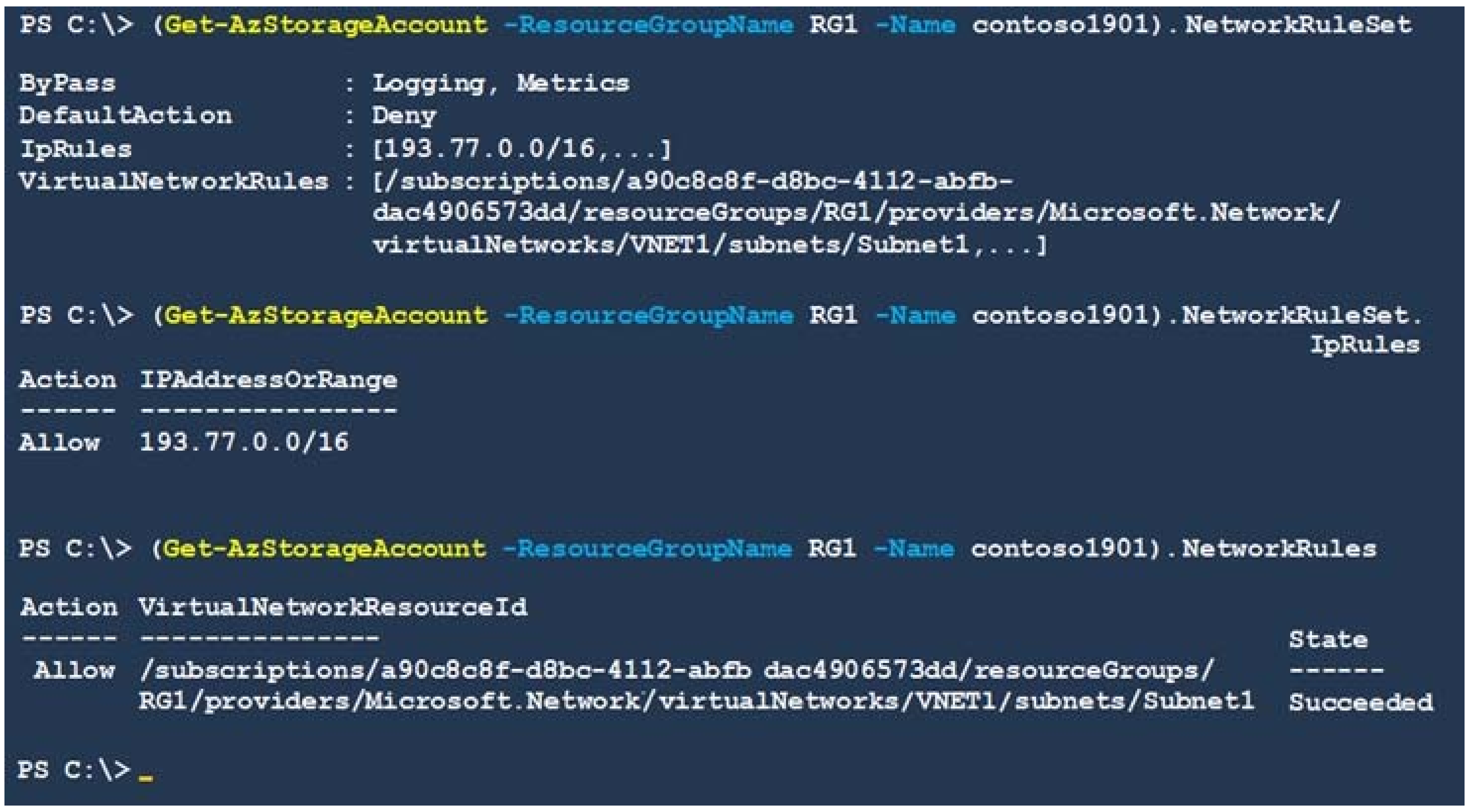
You create resources in an Azure subscription as shown in the following table.



Name	Type	Region
RG1	Resource group	West Europe
VNET1	Azure virtual network	West Europe
Contoso1901	Azure Storage account	West Europe

VNET1 contains two subnets named Subnet1 and Subnet2. Subnet1 has a network ID of 10.0.0.0/24. Subnet2 has a network ID of 10.1.1.0/24.

Contoso1901 is configured as shown in the exhibit. (Click the Exhibit tab.)

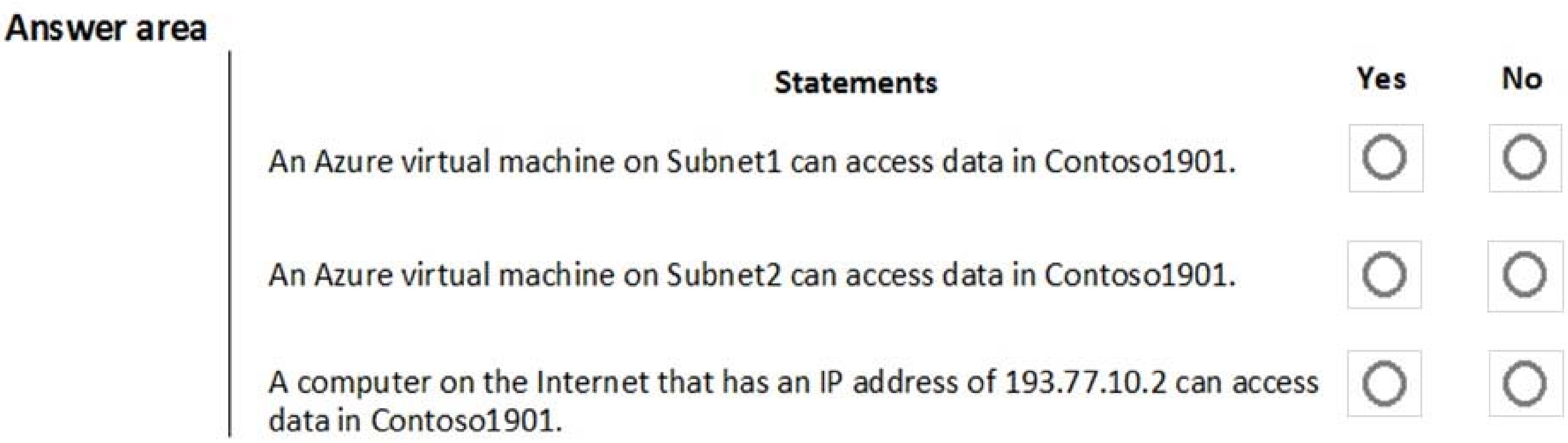


```
PS C:\> (Get-AzStorageAccount -ResourceGroupName RG1 -Name contoso1901).NetworkRuleSet

ByPass              : Logging, Metrics
DefaultAction       : Deny
IpRules             : [193.77.0.0/16,...]
VirtualNetworkRules : [/subscriptions/a90c8c8f-d8bc-4112-abfb-
                      dac4906573dd/resourceGroups/RG1/providers/Microsoft.Network/
                      virtualNetworks/VNET1/subnets/Subnet1,...]

PS C:\> (Get-AzStorageAccount -ResourceGroupName RG1 -Name contoso1901).NetworkRuleSet.
                                                                              IpRules

Action  IPAddressOrRange
------  ----------------
Allow   193.77.0.0/16


PS C:\> (Get-AzStorageAccount -ResourceGroupName RG1 -Name contoso1901).NetworkRules

Action VirtualNetworkResourceId
------ ---------------                                                    State
 Allow /subscriptions/a90c8c8f-d8bc-4112-abfb dac4906573dd/resourceGroups/    ------
       RG1/providers/Microsoft.Network/virtualNetworks/VNET1/subnets/Subnet1  Succeeded

PS C:\>_
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

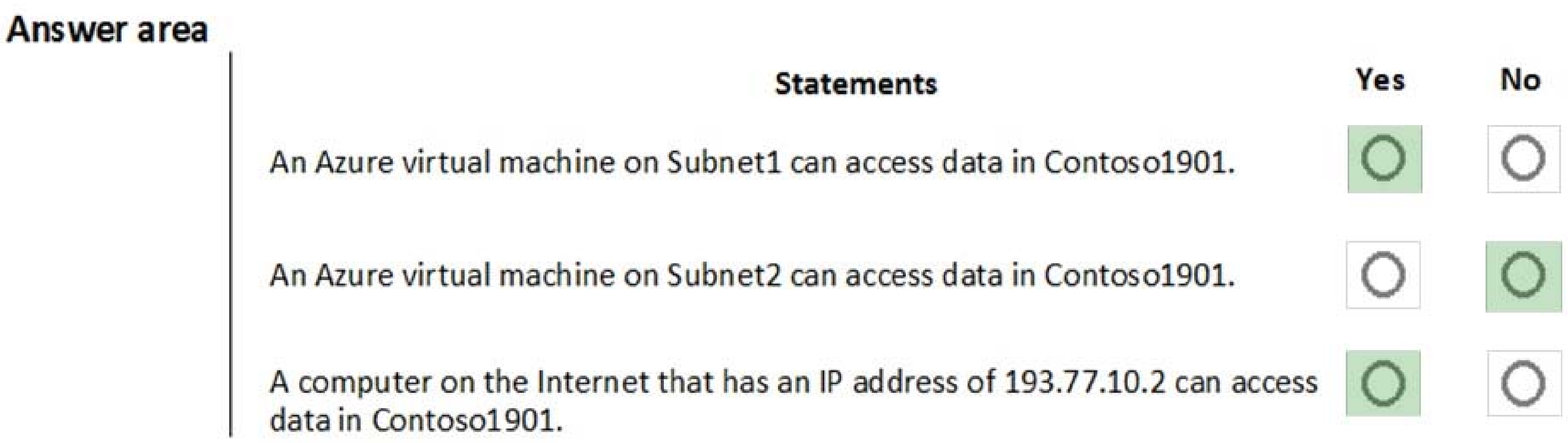
Hot Area:



Answer area

Statements	Yes	No
An Azure virtual machine on Subnet1 can access data in Contoso1901.	○	○
An Azure virtual machine on Subnet2 can access data in Contoso1901.	○	○
A computer on the Internet that has an IP address of 193.77.10.2 can access data in Contoso1901.	○	○

Correct Answer:



Answer area

Statements	Yes	No
An Azure virtual machine on Subnet1 can access data in Contoso1901.	●	○
An Azure virtual machine on Subnet2 can access data in Contoso1901.	○	●
A computer on the Internet that has an IP address of 193.77.10.2 can access data in Contoso1901.	●	○

Box 1: Yes -

Access from Subnet1 is allowed.

Box 2: No -
No access from Subnet2 is allowed.

Box 3: Yes -
Access from IP address 193.77.10.2 is allowed.

Question #24 *Topic 2*

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You use Azure Security Center for the centralized policy management of three Azure subscriptions.
You use several policy definitions to manage the security of the subscriptions.
You need to deploy the policy definitions as a group to all three subscriptions.
Solution: You create a policy initiative and assignments that are scoped to resource groups.
Does this meet the goal?

A. Yes

B. No

Correct Answer: *B*
Instead use a management group.
Management groups in Microsoft Azure solve the problem of needing to impose governance policy on more than one Azure subscription simultaneously.
Reference:
https://4sysops.com/archives/apply-governance-policy-to-multiple-azure-subscriptions-with-management-groups/

Topic 3 - Question Set 3

HOTSPOT -

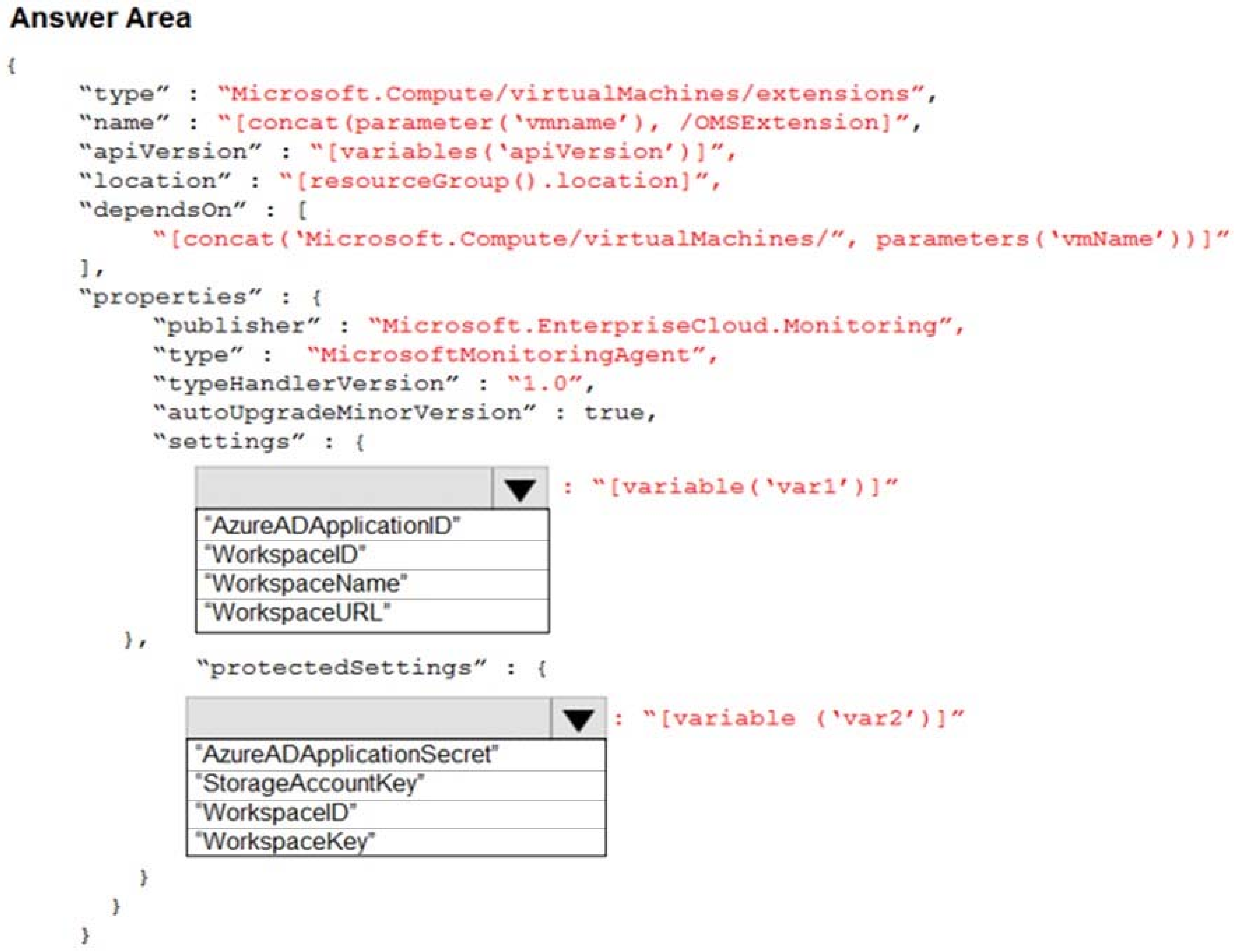
You plan to use Azure Monitor Logs to collect logs from 200 servers that run Windows Server 2016.

You need to automate the deployment of the Log Analytics Agent to all the servers by using an Azure Resource Manager template.

How should you complete the template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

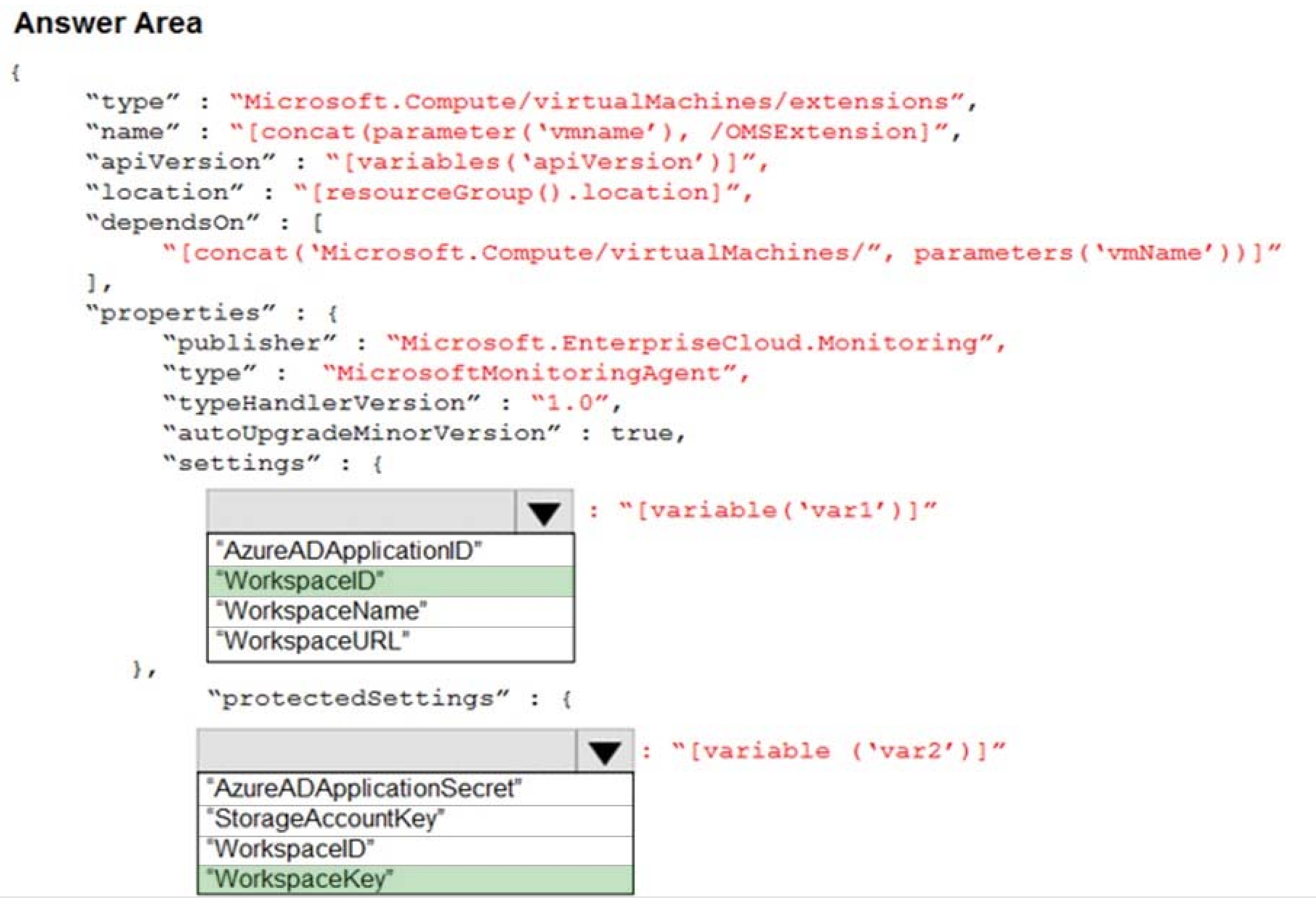
Hot Area:



Answer Area

```
{
      "type" : "Microsoft.Compute/virtualMachines/extensions",
      "name" : "[concat(parameter('vmname'), /OMSExtension]",
      "apiVersion" : "[variables('apiVersion')]",
      "location" : "[resourceGroup().location]",
      "dependsOn" : [
           "[concat('Microsoft.Compute/virtualMachines/", parameters('vmName'))]"
      ],
      "properties" : {
           "publisher" : "Microsoft.EnterpriseCloud.Monitoring",
           "type" :  "MicrosoftMonitoringAgent",
           "typeHandlerVersion" : "1.0",
           "autoUpgradeMinorVersion" : true,
           "settings" : {
                [                         ▼] : "[variable('var1')]"
                 "AzureADApplicationID"
                 "WorkspaceID"
                 "WorkspaceName"
                 "WorkspaceURL"
         },
                "protectedSettings" : {
               [                            ▼] : "[variable ('var2')]"
                "AzureADApplicationSecret"
                "StorageAccountKey"
                "WorkspaceID"
                "WorkspaceKey"
          }
        }
      }
```

Correct Answer:



Answer Area

```
{
     “type” : “Microsoft.Compute/virtualMachines/extensions”,
     “name” : “[concat(parameter(‘vmname’), /OMSExtension]”,
     “apiVersion” : “[variables(‘apiVersion’)]”,
     “location” : “[resourceGroup().location]”,
     “dependsOn” : [
          “[concat(‘Microsoft.Compute/virtualMachines/”, parameters(‘vmName’))]”
     ],
     “properties” : {
          “publisher” : “Microsoft.EnterpriseCloud.Monitoring”,
          “type” :  “MicrosoftMonitoringAgent”,
          “typeHandlerVersion” : “1.0”,
          “autoUpgradeMinorVersion” : true,
          “settings” : {
                                        : “[variable(‘var1’)]”
```

- "AzureADApplicationID"
- [✓ "WorkspaceID"]
- "WorkspaceName"
- "WorkspaceURL"

```
        },
             “protectedSettings” : {
                                        : “[variable (‘var2’)]”
```

- "AzureADApplicationSecret"
- "StorageAccountKey"
- "WorkspaceID"
- [✓ "WorkspaceKey"]

Question #2

Topic 3

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.
You are assigned the Global administrator role for the tenant. You are responsible for managing Azure Security Center settings.
You need to create a custom sensitivity label.
What should you do?

A. Create a custom sensitive information type.

B. Elevate access for global administrators in Azure AD.

C. Change Azure Security Center to use Standard-tier-pricing.

D. Enable integration with Microsoft Cloud App Security.

Correct Answer: *A*
First, you need to create a new sensitive information type because you can't directly modify the default rules.
References:
https://docs.microsoft.com/en-us/office365/securitycompliance/customize-a-built-in-sensitive-information-type

HOTSPOT -

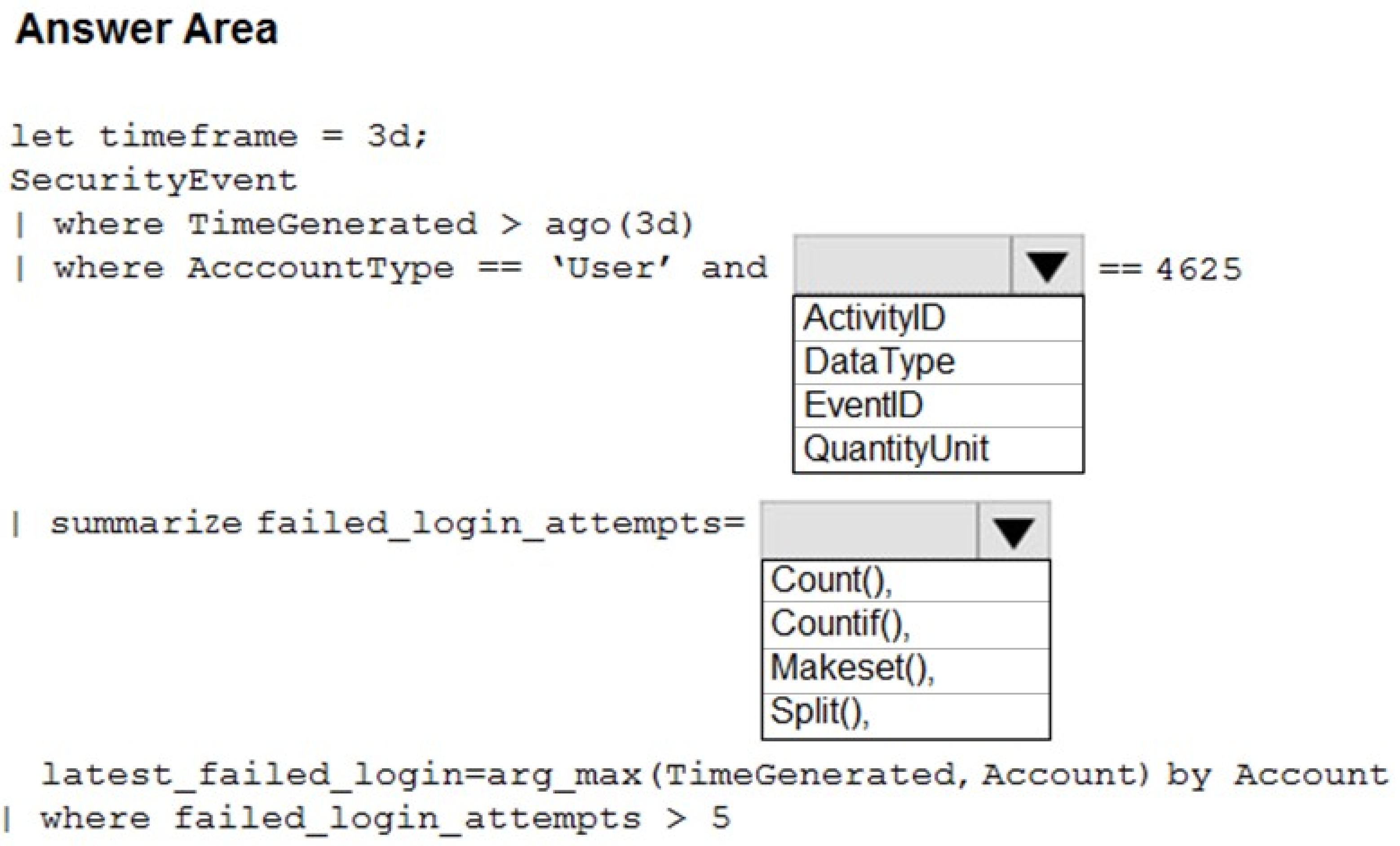
You suspect that users are attempting to sign in to resources to which they have no access.

You need to create an Azure Log Analytics query to identify failed user sign-in attempts from the last three days. The results must only show users who had more than five failed sign-in attempts.

How should you configure the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

```
let timeframe = 3d;
SecurityEvent
| where TimeGenerated > ago(3d)
| where AcccountType == 'User' and [ ▼ ] == 4625
```

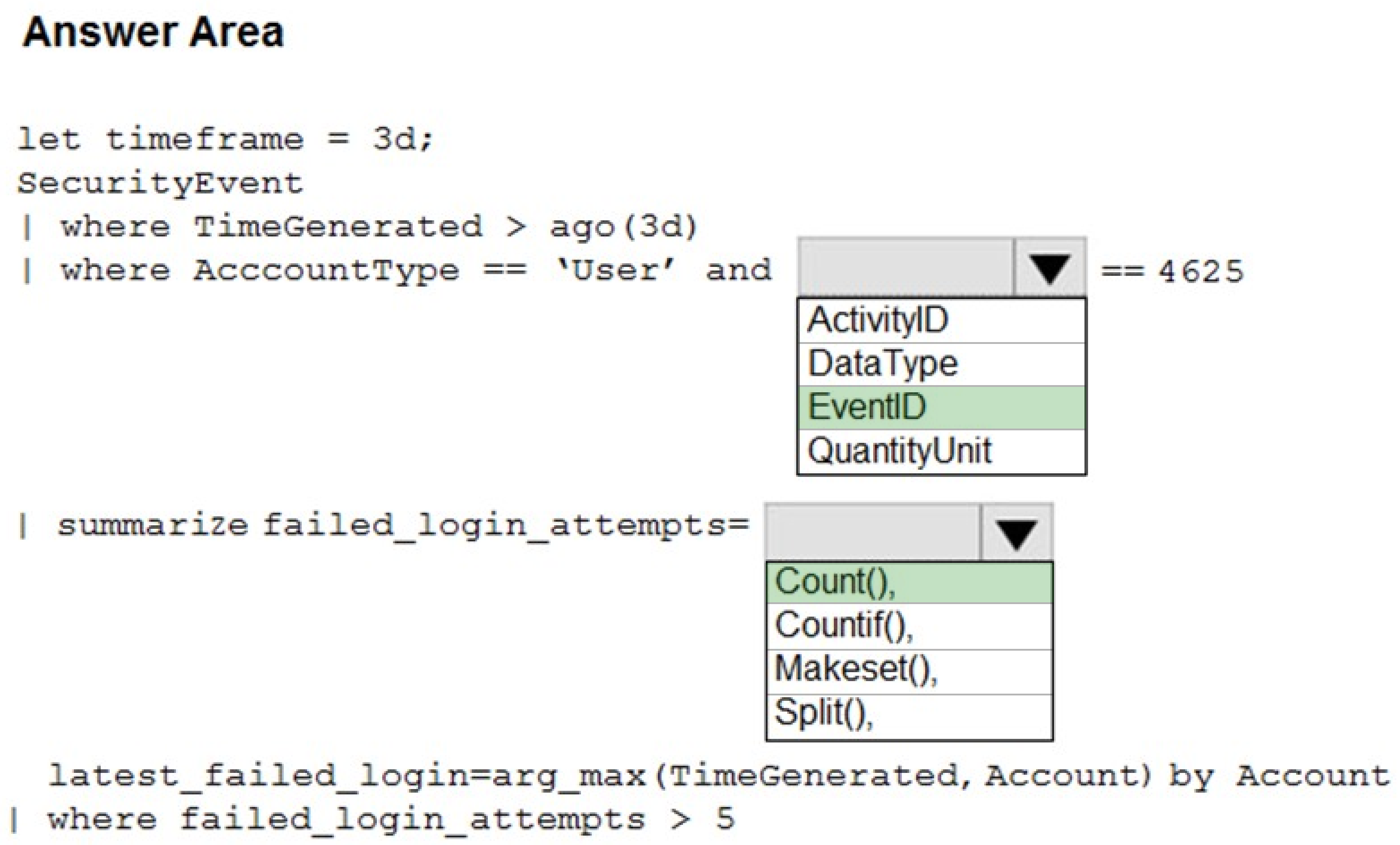
ActivityID
DataType
EventID
QuantityUnit

```
| summarize failed_login_attempts= [ ▼ ]
```

Count(),
Countif(),
Makeset(),
Split(),

```
  latest_failed_login=arg_max(TimeGenerated, Account) by Account
| where failed_login_attempts > 5
```

Correct Answer:



Answer Area

```
let timeframe = 3d;
SecurityEvent
| where TimeGenerated > ago(3d)
| where AcccountType == 'User' and [ ▼ ] == 4625
```

ActivityID
DataType
[✓ EventID]
QuantityUnit

```
| summarize failed_login_attempts= [ ▼ ]
```

[✓ Count(),]
Countif(),
Makeset(),
Split(),

```
  latest_failed_login=arg_max(TimeGenerated, Account) by Account
| where failed_login_attempts > 5
```

The following example identifies user accounts that failed to log in more than five times in the last day, and when they last attempted to log in.

let timeframe = 1d;

SecurityEvent -

| where TimeGenerated > ago(1d)

| where AccountType == 'User' and EventID == 4625 // 4625 - failed log in

| summarize failed_login_attempts=count(), latest_failed_login=arg_max(TimeGenerated, Account) by Account

| where failed_login_attempts > 5

| project-away Account1
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/examples

Question #4 *Topic 3*

You have an Azure subscription named Sub1.
In Azure Security Center, you have a security playbook named Play1. Play1 is configured to send an email message to a user named User1.
You need to modify Play1 to send email messages to a distribution group named Alerts.
What should you use to modify Play1?

A. Azure DevOps

B. Azure Application Insights

C. Azure Monitor

D. Azure Logic Apps Designer

Correct Answer: *D*
You can change an existing playbook in Security Center to add an action, or conditions. To do that you just need to click on the name of the playbook that you want to change, in the Playbooks tab, and Logic App Designer opens up.
References:
https://docs.microsoft.com/en-us/azure/security-center/security-center-playbooks

Question #5 *Topic 3*

You create a new Azure subscription.
You need to ensure that you can create custom alert rules in Azure Security Center.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. Onboard Azure Active Directory (Azure AD) Identity Protection.

B. Create an Azure Storage account.

C. Implement Azure Advisor recommendations.

D. Create an Azure Log Analytics workspace.

E. Upgrade the pricing tier of Security Center to Standard.

Correct Answer: *BD*
D: You need write permission in the workspace that you select to store your custom alert.
References:
https://docs.microsoft.com/en-us/azure/security-center/security-center-custom-alert

Question #6 *Topic 3*

You have an Azure subscription named Sub1 that contains an Azure Log Analytics workspace named LAW1.
You have 100 on-premises servers that run Windows Server 2012 R2 and Windows Server 2016. The servers connect to LAW1. LAW1 is configured to collect security-related performance counters from the connected servers.
You need to configure alerts based on the data collected by LAW1. The solution must meet the following requirements:
✑ Alert rules must support dimensions.
✑ The time it takes to generate an alert must be minimized.
✑ Alert notifications must be generated only once when the alert is generated and once when the alert is resolved.
Which signal type should you use when you create the alert rules?

A. Log

B. Log (Saved Query)

C. Metric

D. Activity Log

Correct Answer: *C*
Metric alerts in Azure Monitor provide a way to get notified when one of your metrics cross a threshold. Metric alerts work on a range of multi-dimensional platform metrics, custom metrics, Application Insights standard and custom metrics.
Note: Signals are emitted by the target resource and can be of several types. Metric, Activity log, Application Insights, and Log.
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-metric

Question #7 *Topic 3*

DRAG DROP -

You have an Azure subscription that contains 100 virtual machines. Azure Diagnostics is enabled on all the virtual machines.

You are planning the monitoring of Azure services in the subscription.

You need to retrieve the following details:

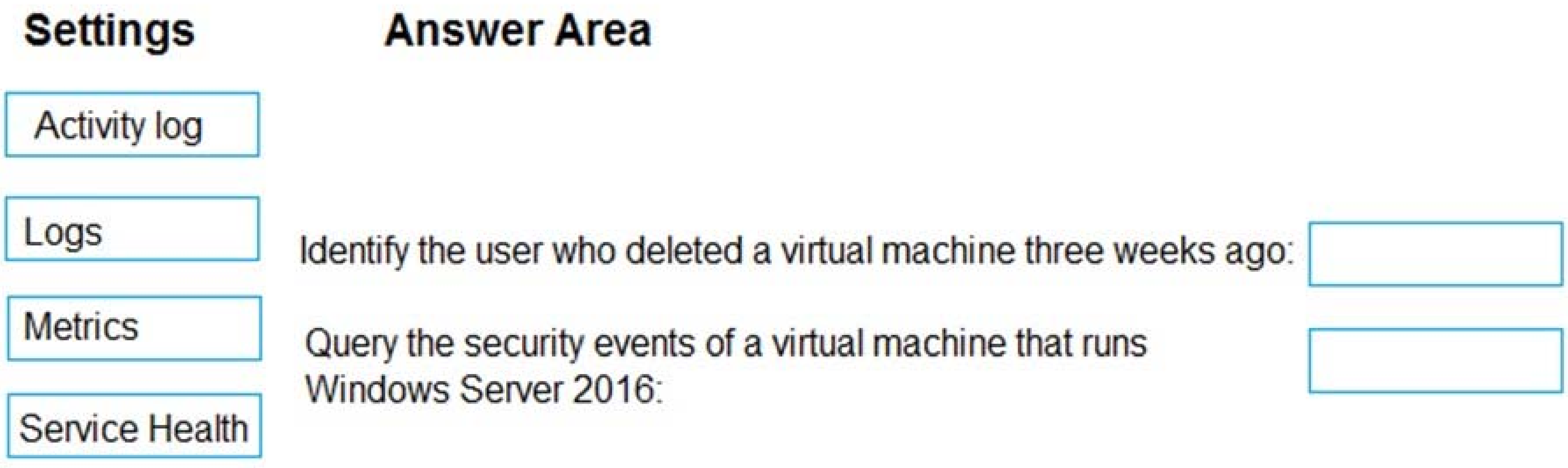
✑ Identify the user who deleted a virtual machine three weeks ago.

✑ Query the security events of a virtual machine that runs Windows Server 2016.

What should you use in Azure Monitor? To answer, drag the appropriate configuration settings to the correct details. Each configuration setting may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Settings

Activity log

Logs

Metrics

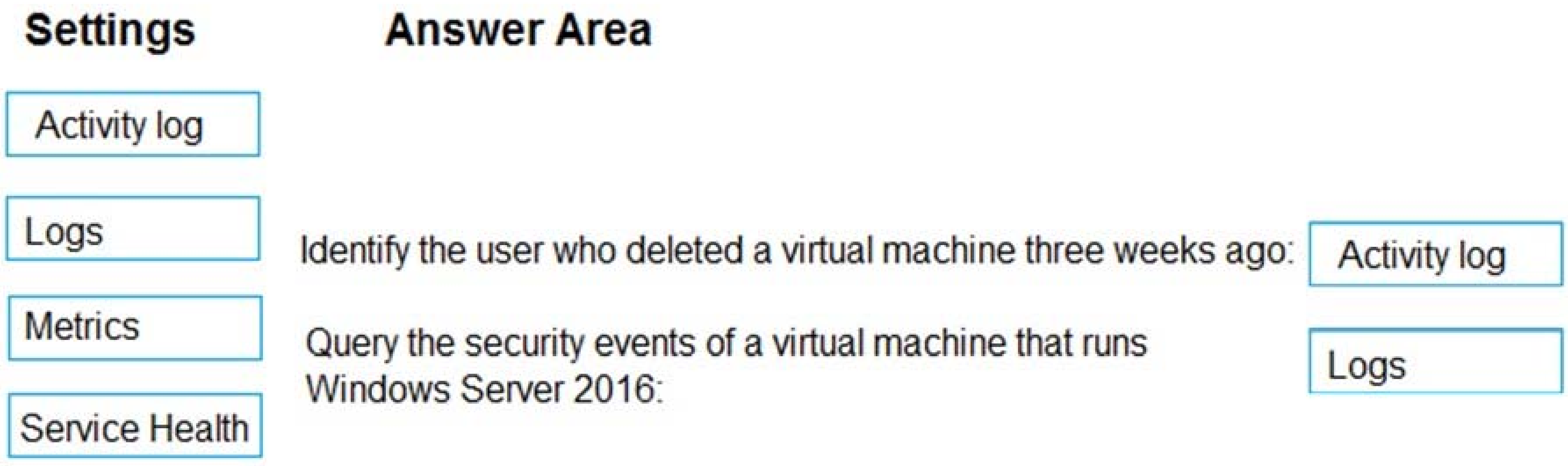
Service Health

Answer Area

Identify the user who deleted a virtual machine three weeks ago: □

Query the security events of a virtual machine that runs Windows Server 2016: □

Correct Answer:



Settings

Activity log

Logs

Metrics

Service Health

Answer Area

Identify the user who deleted a virtual machine three weeks ago: Activity log

Query the security events of a virtual machine that runs Windows Server 2016: Logs

Box1: Activity log -

Azure activity logs provide insight into the operations that were performed on resources in your subscription. Activity logs were previously known as "audit logs" or "operational logs," because they report control-plane events for your subscriptions.

Activity logs help you determine the "what, who, and when" for write operations (that is, PUT, POST, or DELETE).

Box 2: Logs -

Log Integration collects Azure diagnostics from your Windows virtual machines, Azure activity logs, Azure Security Center alerts, and Azure resource provider logs. This integration provides a unified dashboard for all your assets, whether they're on-premises or in the cloud, so that you can aggregate, correlate, analyze, and alert for security events.

References:

https://docs.microsoft.com/en-us/azure/security/azure-log-audit

Question #8 Topic 3

HOTSPOT -

You create an alert rule that has the following settings:

✑ Resource: RG1

✑ Condition: All Administrative operations

Actions: Action groups configured for this alert rule: ActionGroup1

▪

✑ Alert rule name: Alert1

You create an action rule that has the following settings:

✑ Scope: VM1

✑ Filter criteria: Resource Type = "Virtual Machines"

✑ Define on this scope: Suppression

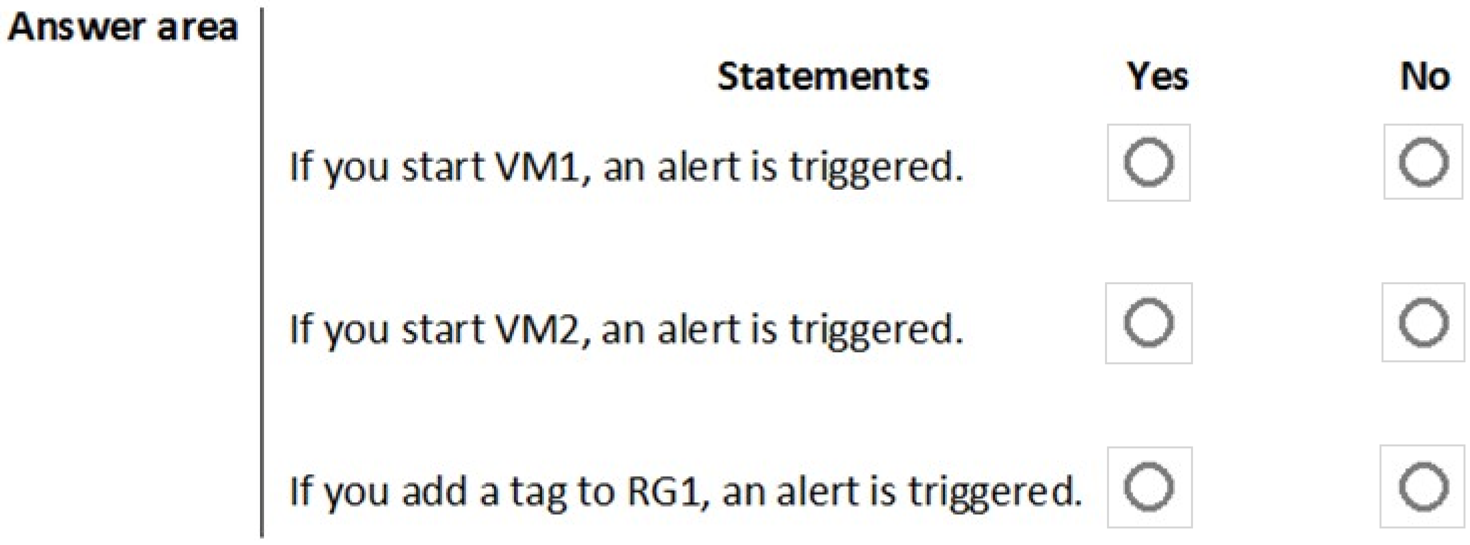
✑ Suppression config: From now (always)

✑ Name: ActionRule1

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Note: Each correct selection is worth one point.

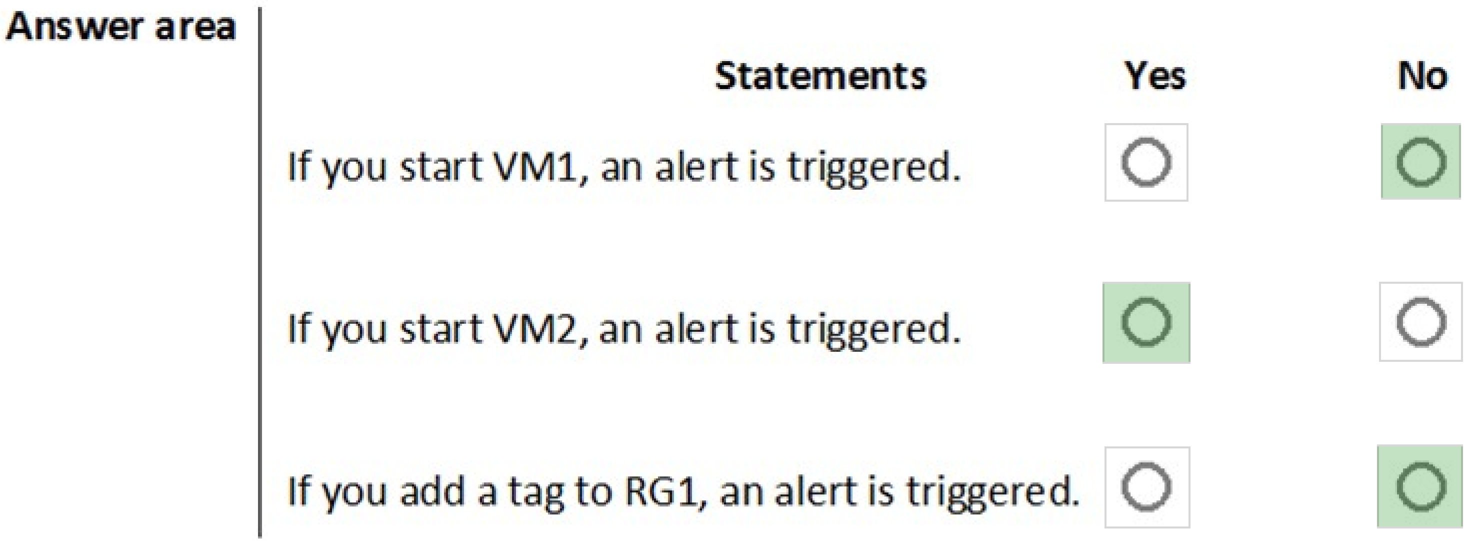
Hot Area:



Answer area

Statements	Yes	No
If you start VM1, an alert is triggered.	○	○
If you start VM2, an alert is triggered.	○	○
If you add a tag to RG1, an alert is triggered.	○	○

Correct Answer:



Answer area

Statements	Yes	No
If you start VM1, an alert is triggered.	○	[✓ ○]
If you start VM2, an alert is triggered.	[✓ ○]	○
If you add a tag to RG1, an alert is triggered.	○	[✓ ○]

Box 1:

The scope for the action rule is set to VM1 and is set to suppress alerts indefinitely.

Box 2:

The scope for the action rule is not set to VM2.

Box 3:

Adding a tag is not an administrative operation.

References:

https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-activity-log https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-action-rules

Question #9 *Topic 3*

DRAG DROP -

You have an Azure subscription named Sub1 that contains an Azure Log Analytics workspace named LAW1.

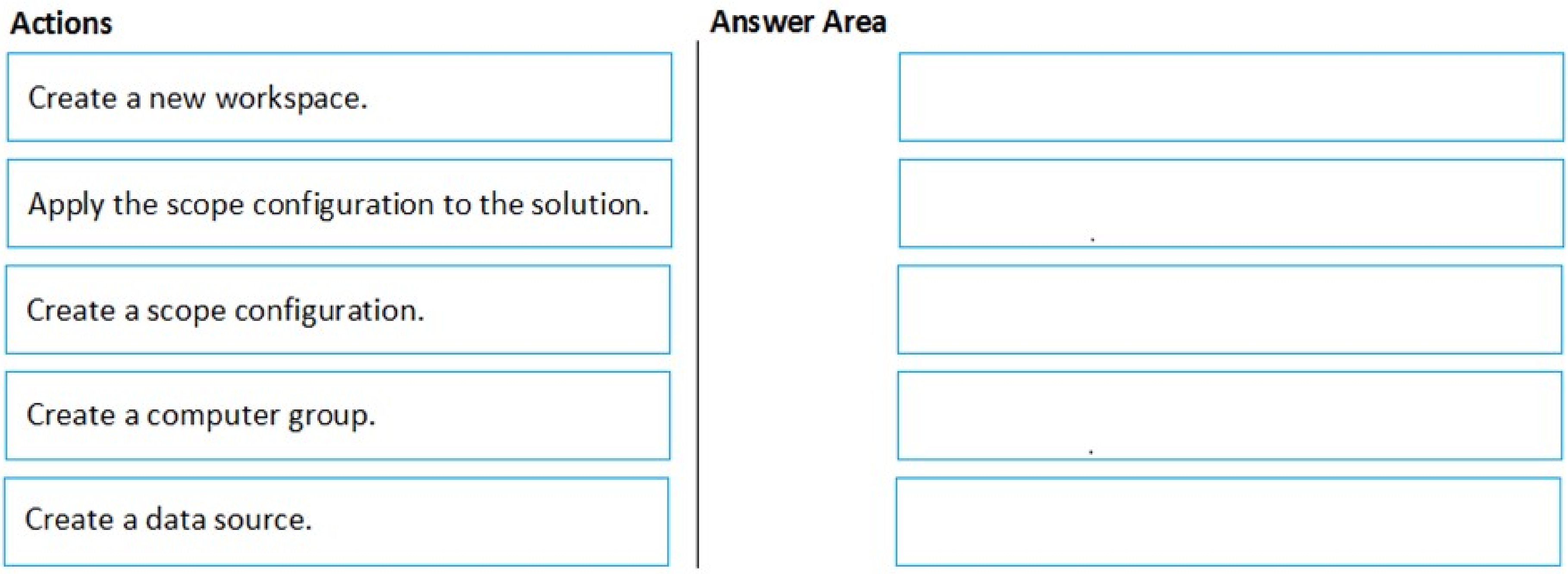
You have 500 Azure virtual machines that run Windows Server 2016 and are enrolled in LAW1.

You plan to add the System Update Assessment solution to LAW1.

You need to ensure that System Update Assessment-related logs are uploaded to LAW1 from 100 of the virtual machines only.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



Actions

Create a new workspace.

Apply the scope configuration to the solution.

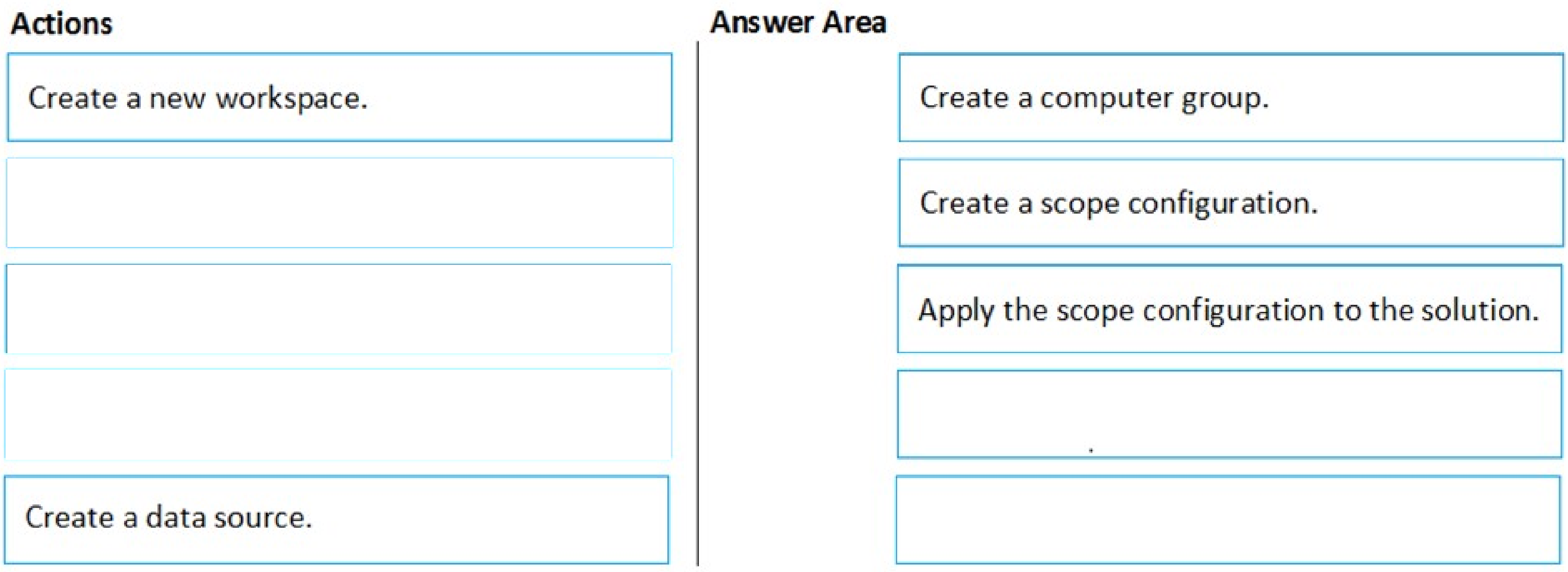
Create a scope configuration.

Create a computer group.

Create a data source.

Answer Area

Correct Answer:



Actions

Create a new workspace.

Create a data source.

Answer Area

Create a computer group.

Create a scope configuration.

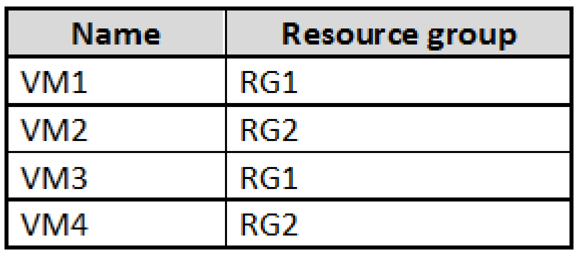
Apply the scope configuration to the solution.

Reference:

https://docs.microsoft.com/en-us/azure/azure-monitor/insights/solution-targeting

Question #10 *Topic 3*

You have an Azure subscription named Sub1 that contains the virtual machines shown in the following table.



Name	Resource group
VM1	RG1
VM2	RG2
VM3	RG1
VM4	RG2

You need to ensure that the virtual machines in RG1 have the Remote Desktop port closed until an authorized user requests access.
What should you configure?

A. Azure Active Directory (Azure AD) Privileged Identity Management (PIM)

B. an application security group

C. Azure Active Directory (Azure AD) conditional access

D. just in time (JIT) VM access

Correct Answer: *D*
Just-in-time (JIT) virtual machine (VM) access can be used to lock down inbound traffic to your Azure VMs, reducing exposure to attacks while providing easy access to connect to VMs when needed.
Note: When just-in-time is enabled, Security Center locks down inbound traffic to your Azure VMs by creating an NSG rule. You select the ports on the VM to which inbound traffic will be locked down. These ports are controlled by the just-in-time solution.
When a user requests access to a VM, Security Center checks that the user has Role-Based Access Control (RBAC) permissions that permit them to successfully request access to a VM. If the request is approved, Security Center automatically configures the Network Security Groups (NSGs) and Azure Firewall to allow inbound traffic to the selected ports and requested source IP addresses or ranges, for the amount of time that was specified. After the time has expired, Security
Center restores the NSGs to their previous states. Those connections that are already established are not being interrupted, however.
Reference:
https://docs.microsoft.com/en-us/azure/security-center/security-center-just-in-time

Question #11 *Topic 3*

You have 10 virtual machines on a single subnet that has a single network security group (NSG).

You need to log the network traffic to an Azure Storage account.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. Install the Network Performance Monitor solution.

B. Enable Azure Network Watcher.

C. Enable diagnostic logging for the NSG.

D. Enable NSG flow logs.

E. Create an Azure Log Analytics workspace.

Correct Answer: *BD*

A network security group (NSG) enables you to filter inbound traffic to, and outbound traffic from, a virtual machine (VM). You can log network traffic that flows through an NSG with Network Watcher's NSG flow log capability. Steps include:

➾ Create a VM with a network security group

➾ Enable Network Watcher and register the Microsoft.Insights provider

➾ Enable a traffic flow log for an NSG, using Network Watcher's NSG flow log capability

➾ Download logged data

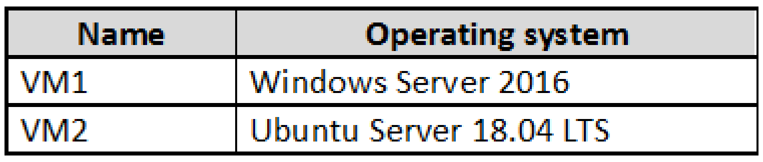
➾ View logged data

Reference:

https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-nsg-flow-logging-portal

Question #12 *Topic 3*

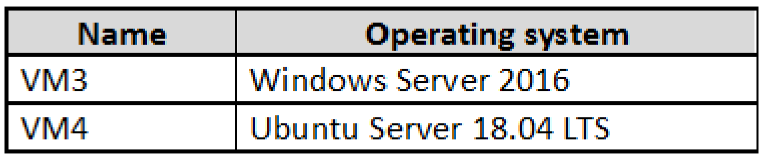
You have an Azure subscription that contains the virtual machines shown in the following table.



Name	Operating system
VM1	Windows Server 2016
VM2	Ubuntu Server 18.04 LTS

From Azure Security Center, you turn on Auto Provisioning.

You deploy the virtual machines shown in the following table.



Name	Operating system
VM3	Windows Server 2016
VM4	Ubuntu Server 18.04 LTS

On which virtual machines is the Log Analytics agent installed?

A. VM3 only

B. VM1 and VM3 only

C. VM3 and VM4 only

D. VM1, VM2, VM3, and VM4

Correct Answer: *D*

When automatic provisioning is On, Security Center provisions the Log Analytics Agent on all supported Azure VMs and any new ones that are created.

Supported Operating systems include: Ubuntu 14.04 LTS (x86/x64), 16.04 LTS (x86/x64), and 18.04 LTS (x64) and Windows Server 2008 R2, 2012, 2012 R2,

2016, version 1709 and 1803

Reference:

https://docs.microsoft.com/en-us/azure/security-center/security-center-enable-data-collection

Question #1

Topic 4

Your company has an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.
The company develops an application named App1. App1 is registered in Azure AD.
You need to ensure that App1 can access secrets in Azure Key Vault on behalf of the application users.
What should you configure?

A. an application permission without admin consent

B. a delegated permission without admin consent

C. a delegated permission that requires admin consent

D. an application permission that requires admin consent

Correct Answer: *B*
Delegated permissions - Your client application needs to access the web API as the signed-in user, but with access limited by the selected permission. This type of permission can be granted by a user unless the permission requires administrator consent.
Incorrect Answers:
A, D: Application permissions - Your client application needs to access the web API directly as itself (no user context). This type of permission requires administrator consent and is also not available for public (desktop and mobile) client applications.
References:
https://docs.microsoft.com/en-us/azure/active-directory/develop/quickstart-configure-app-access-web-apis

Question #2

Topic 4

DRAG DROP -

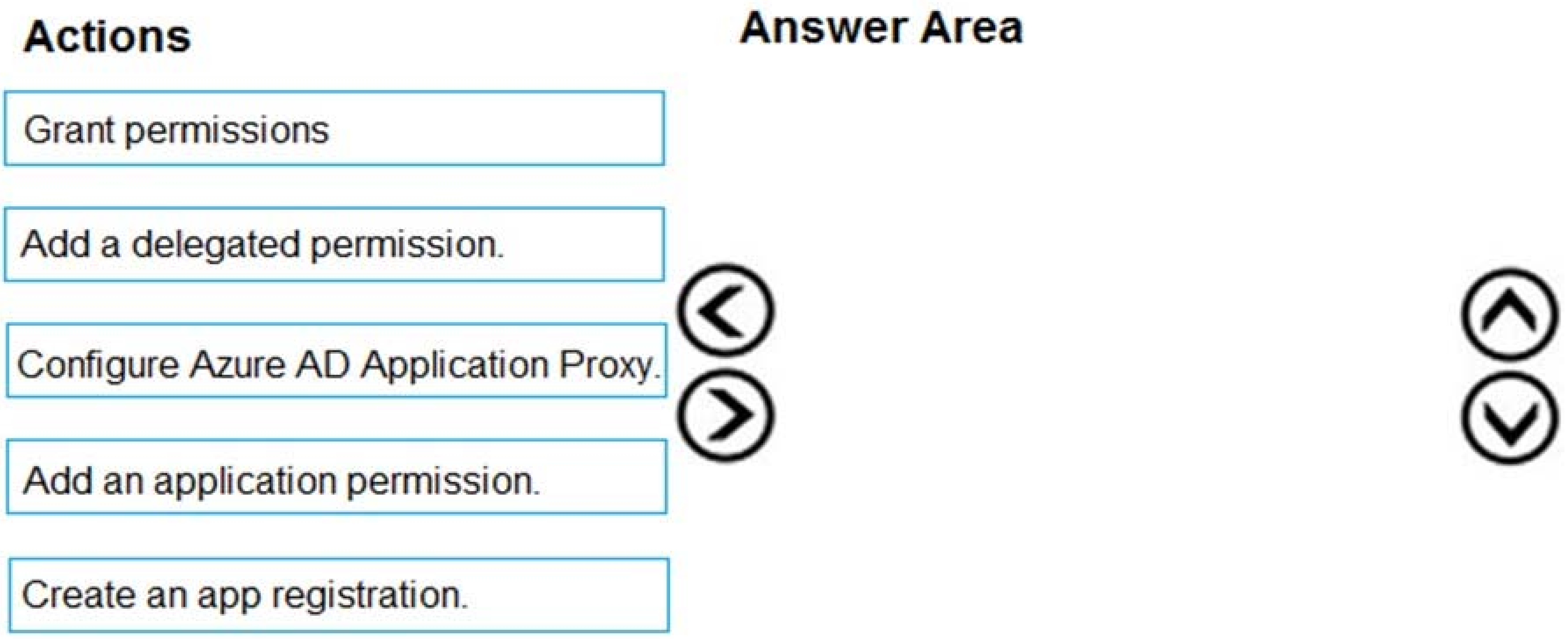
Your company has an Azure Active Directory (Azure AD) tenant named contoso.com.

The company is developing an application named App1. App1 will run as a service on server that runs Windows Server 2016. App1 will authenticate to contoso.com and access Microsoft Graph to read directory data.

You need to delegate the minimum required permissions to App1.

Which three actions should you perform in sequence from the Azure portal? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

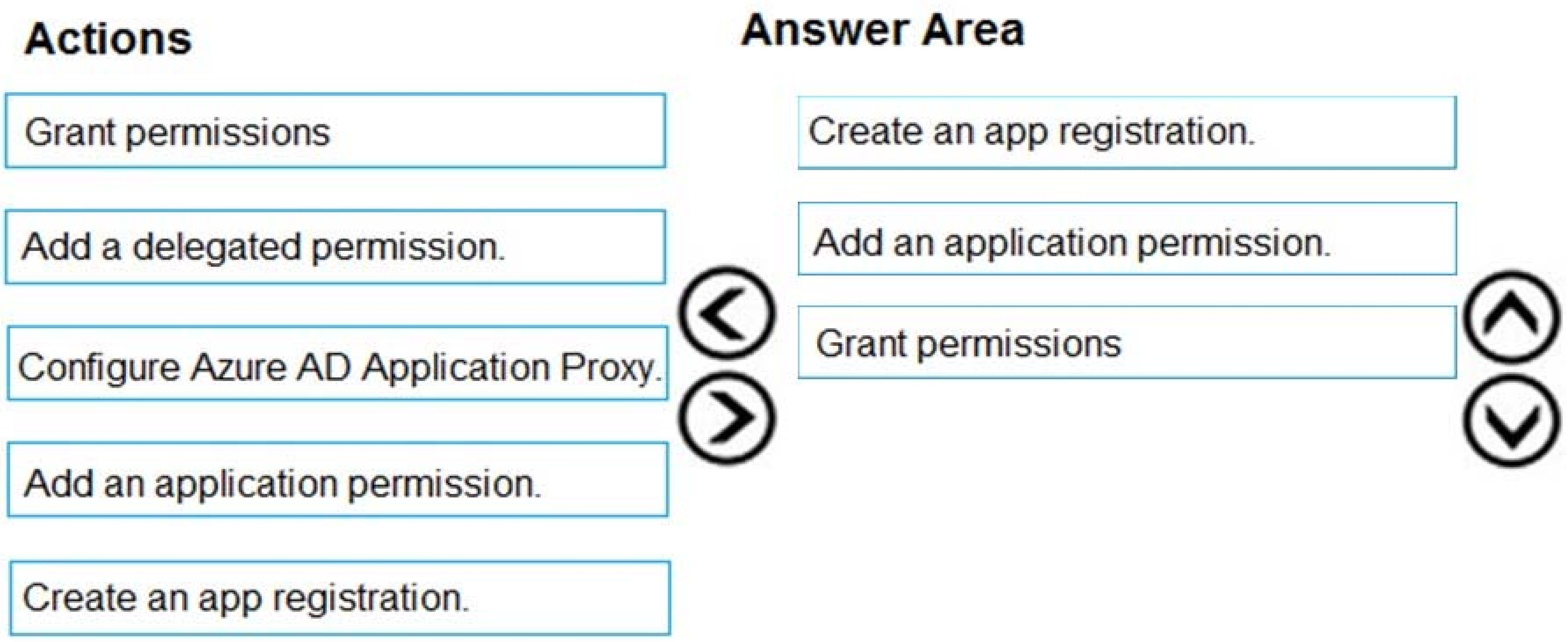


Actions

- Grant permissions
- Add a delegated permission.
- Configure Azure AD Application Proxy.
- Add an application permission.
- Create an app registration.

Answer Area

Correct Answer:



Actions

- Grant permissions
- Add a delegated permission.
- Configure Azure AD Application Proxy.
- Add an application permission.
- Create an app registration.

Answer Area

- Create an app registration.
- Add an application permission.
- Grant permissions

Step 1: Create an app registration

First the application must be created/registered.

Step 2: Add an application permission

Application permissions are used by apps that run without a signed-in user present.

Step 3: Grant permissions -

Incorrect Answers:

Delegated permission -

Delegated permissions are used by apps that have a signed-in user present.

Application Proxy:

Azure Active Directory's Application Proxy provides secure remote access to on-premises web applications.

References:

https://docs.microsoft.com/en-us/azure/active-directory/develop/v2-permissions-and-consent

Question #3 Topic 4

Your company has an Azure subscription named Sub1 that is associated to an Azure Active Directory Azure (Azure AD) tenant named contoso.com.

The company develops a mobile application named App1. App1 uses the OAuth 2 implicit grant type to acquire Azure AD access tokens.

You need to register App1 in Azure AD.

What information should you obtain from the developer to register the application?

A. a redirect URI

B. a reply URL

C. a key

D. an application ID

Correct Answer: *A*

For Native Applications you need to provide a Redirect URI, which Azure AD will use to return token responses.

References:

https://docs.microsoft.com/en-us/azure/active-directory/develop/v1-protocols-oauth-code

Question #4 Topic 4

From the Azure portal, you are configuring an Azure policy.

You plan to assign policies that use the DeployIfNotExist, AuditIfNotExist, Append, and Deny effects.

Which effect requires a managed identity for the assignment?

A. AuditIfNotExist

B. Append

C. DeployIfNotExist

D. Deny

Correct Answer: *C*

When Azure Policy runs the template in the deployIfNotExists policy definition, it does so using a managed identity.

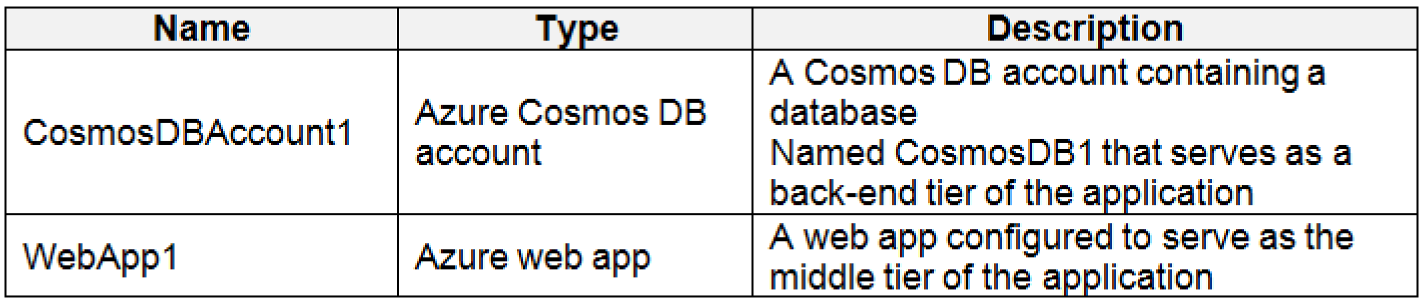
References:

https://docs.microsoft.com/bs-latn-ba/azure/governance/policy/how-to/remediate-resources

HOTSPOT -

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You plan to implement an application that will consist of the resources shown in the following table.



Name	Type	Description
CosmosDBAccount1	Azure Cosmos DB account	A Cosmos DB account containing a database Named CosmosDB1 that serves as a back-end tier of the application
WebApp1	Azure web app	A web app configured to serve as the middle tier of the application

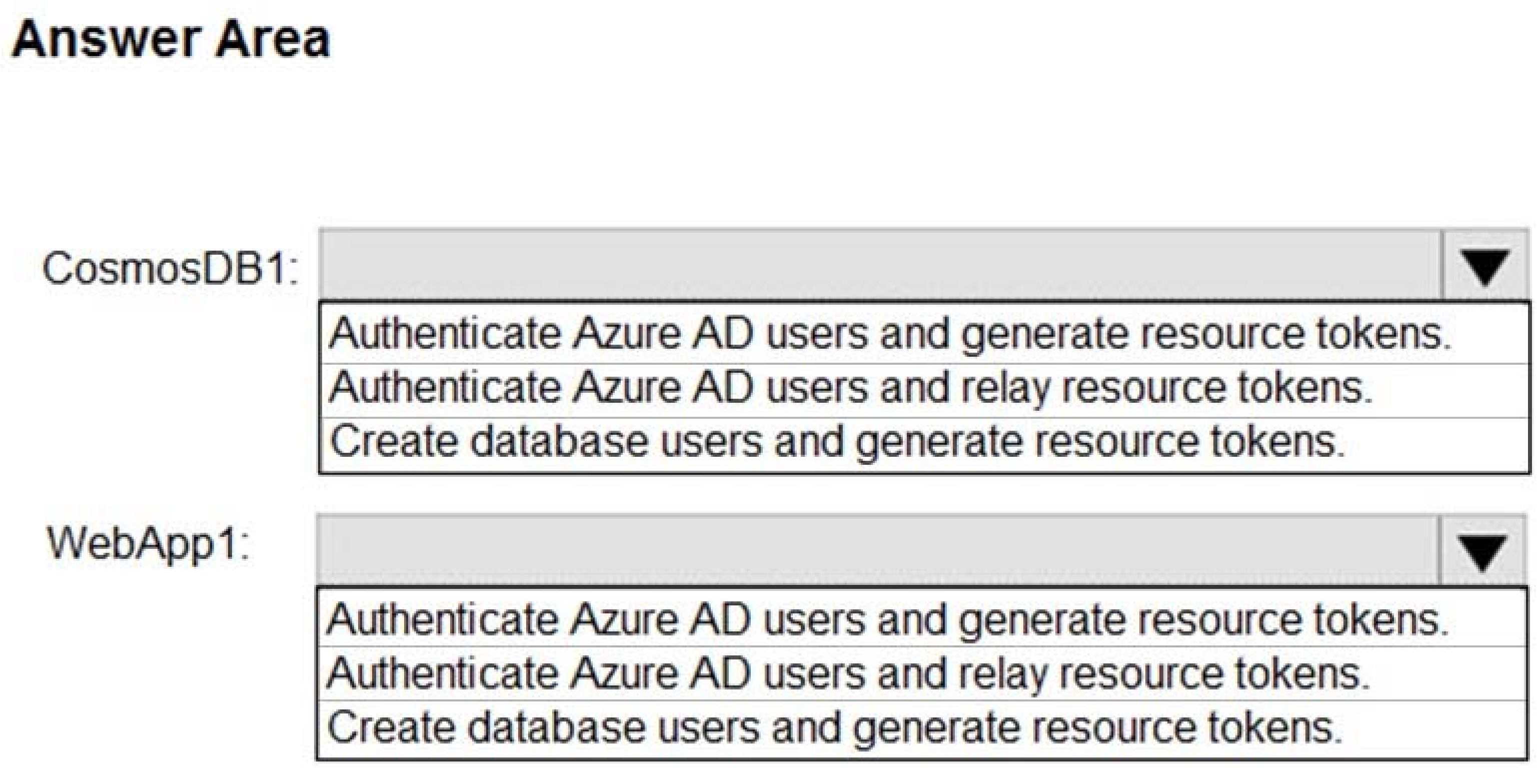
Users will authenticate by using their Azure AD user account and access the Cosmos DB account by using resource tokens.

You need to identify which tasks will be implemented in CosmosDB1 and WebApp1.

Which task should you identify for each resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

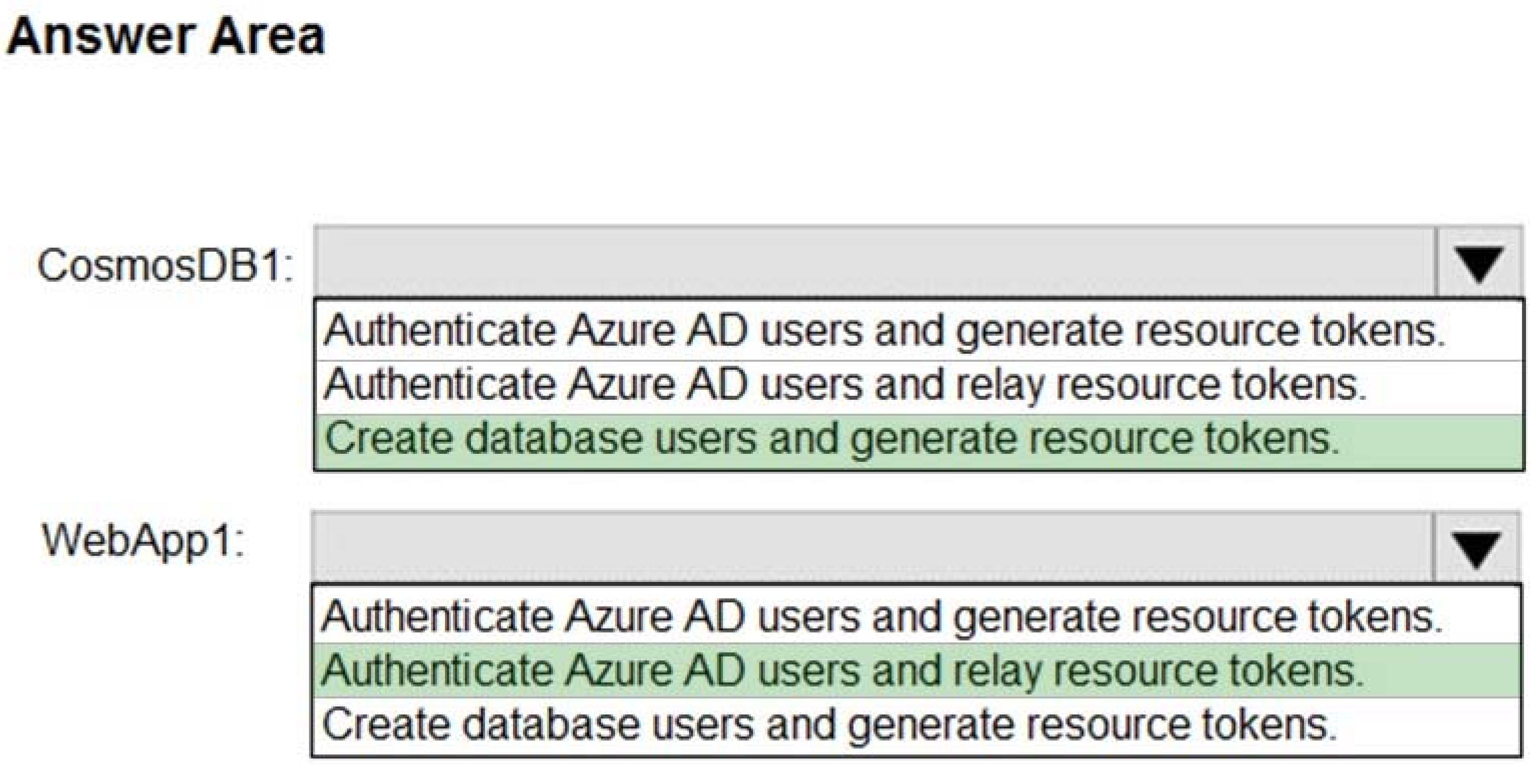


Answer Area

CosmosDB1:
- Authenticate Azure AD users and generate resource tokens.
- Authenticate Azure AD users and relay resource tokens.
- Create database users and generate resource tokens.

WebApp1:
- Authenticate Azure AD users and generate resource tokens.
- Authenticate Azure AD users and relay resource tokens.
- Create database users and generate resource tokens.

Correct Answer:



Answer Area

CosmosDB1:
- Authenticate Azure AD users and generate resource tokens.
- Authenticate Azure AD users and relay resource tokens.
- [✓ Create database users and generate resource tokens.]

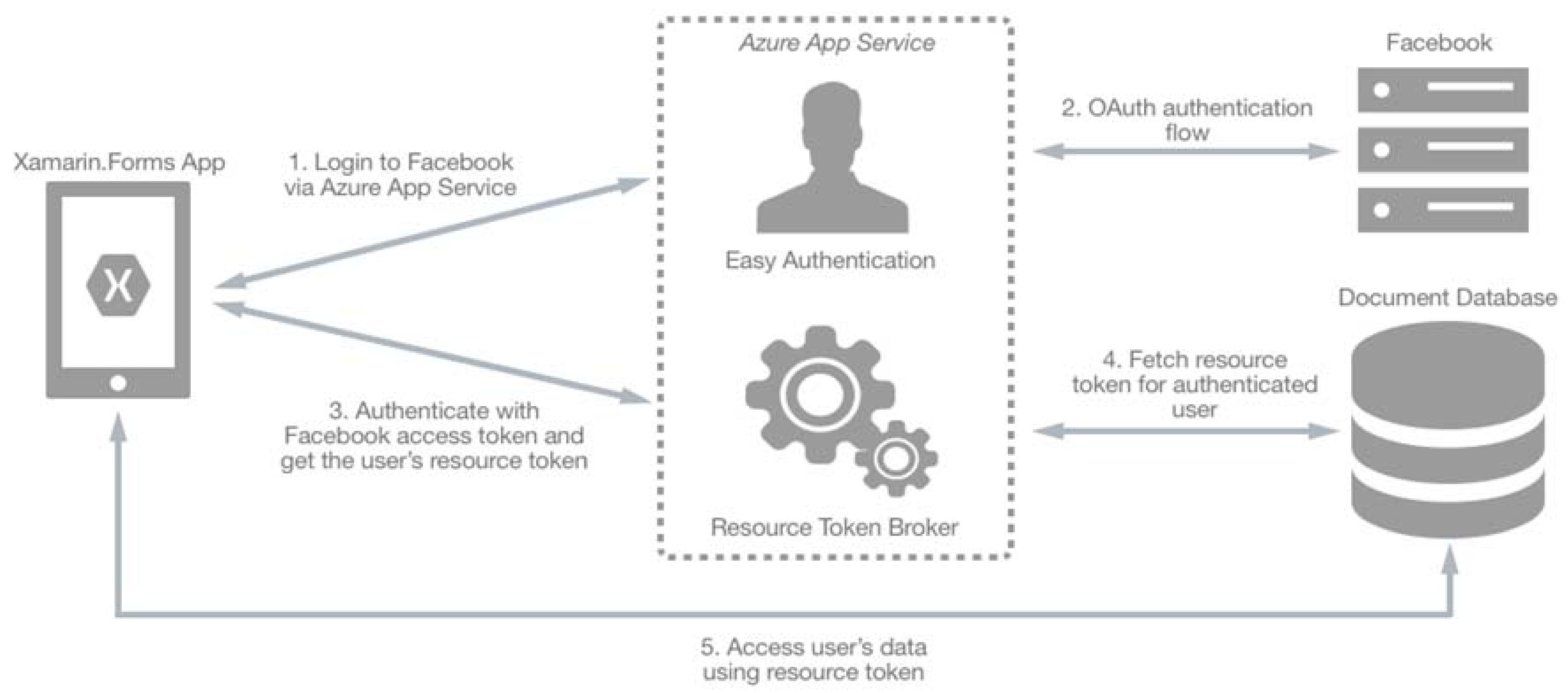
WebApp1:
- Authenticate Azure AD users and generate resource tokens.
- [✓ Authenticate Azure AD users and relay resource tokens.]
- Create database users and generate resource tokens.

CosmosDB1: Create database users and generate resource tokens.

Azure Cosmos DB resource tokens provide a safe mechanism for allowing clients to read, write, and delete specific resources in an Azure Cosmos DB account according to the granted permissions.

WebApp1: Authenticate Azure AD users and relay resource tokens

A typical approach to requesting, generating, and delivering resource tokens to a mobile application is to use a resource token broker. The following diagram shows a high-level overview of how the sample application uses a resource token broker to manage access to the document database data:


Azure App Service
Facebook
2. OAuth authentication flow
Xamarin.Forms App
1. Login to Facebook via Azure App Service
Easy Authentication
Document Database
4. Fetch resource token for authenticated user
3. Authenticate with Facebook access token and get the user's resource token
Resource Token Broker
5. Access user's data using resource token

References:

https://docs.microsoft.com/en-us/xamarin/xamarin-forms/data-cloud/cosmosdb/authentication

Question #6 *Topic 4*

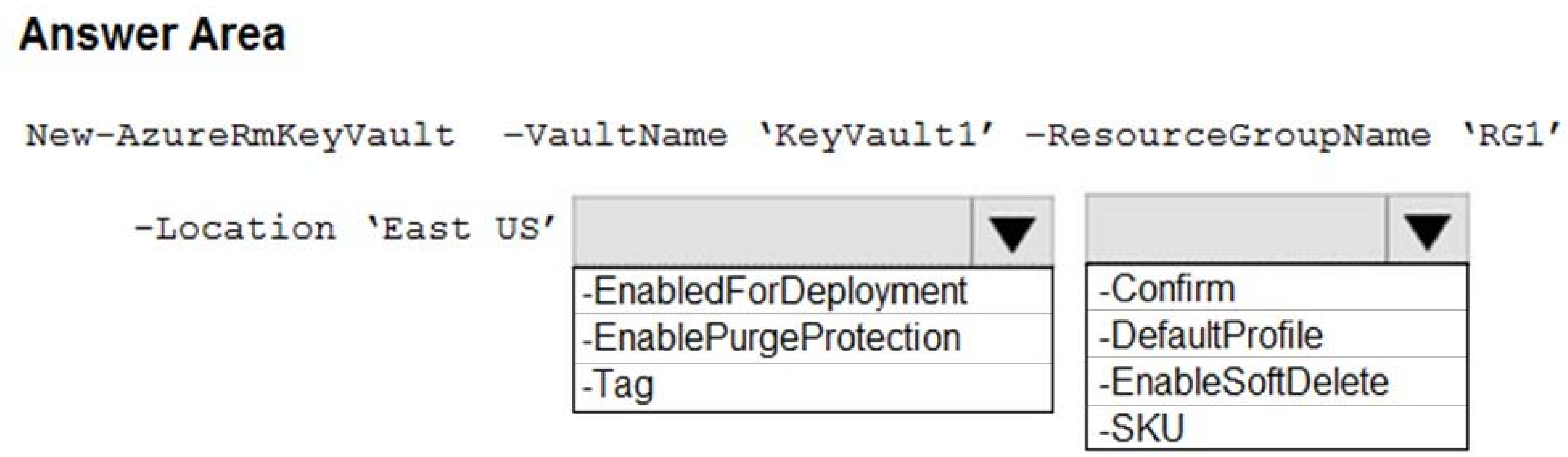
HOTSPOT -

You need to create an Azure key vault. The solution must ensure that any object deleted from the key vault be retained for 90 days.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

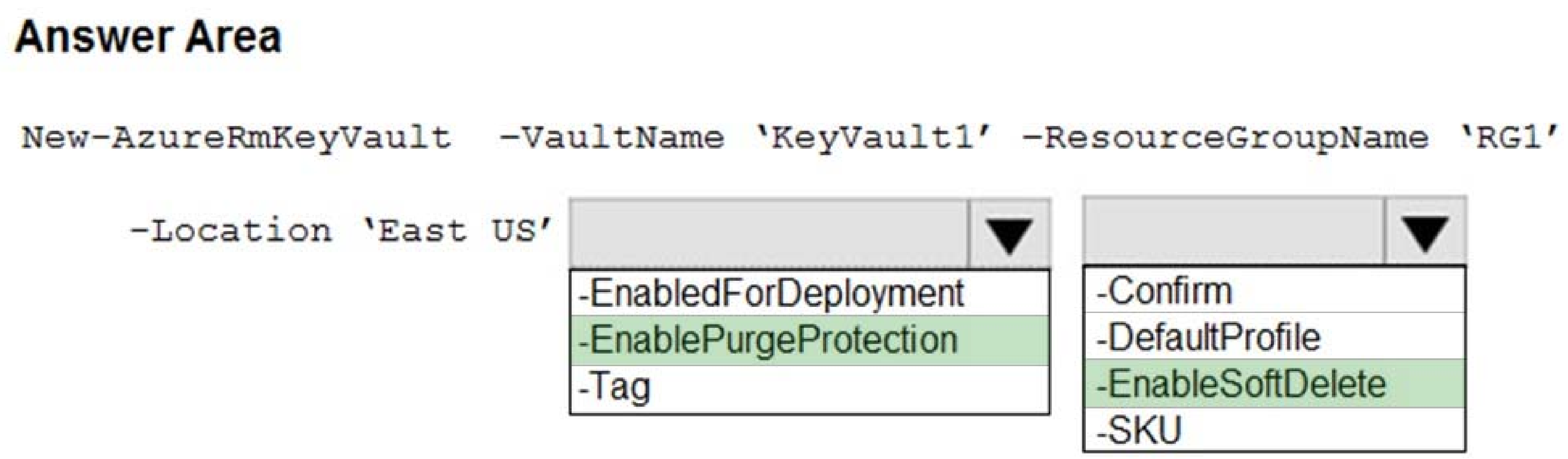
Hot Area:



Answer Area

```
New-AzureRmKeyVault  -VaultName 'KeyVault1' -ResourceGroupName 'RG1'
     -Location 'East US'
```

Correct Answer:



Answer Area

```
New-AzureRmKeyVault  -VaultName 'KeyVault1' -ResourceGroupName 'RG1'
     -Location 'East US'
```

Box 1: -EnablePurgeProtection -

If specified, protection against immediate deletion is enabled for this vault; requires soft delete to be enabled as well.

Box 2: -EnableSoftDelete -

Specifies that the soft-delete functionality is enabled for this key vault. When soft-delete is enabled, for a grace period, you can recover this key vault and its contents after it is deleted.

References:

https://docs.microsoft.com/en-us/powershell/module/azurerm.keyvault/new-azurermkeyvault

Question #7

Topic 4

You have an Azure subscription that contains an Azure key vault named Vault1.
In Vault1, you create a secret named Secret1.
An application developer registers an application in Azure Active Directory (Azure AD).
You need to ensure that the application can use Secret1.
What should you do?

A. In Azure AD, create a role.

B. In Azure Key Vault, create a key.

C. In Azure Key Vault, create an access policy.

D. In Azure AD, enable Azure AD Application Proxy.

Correct Answer: *A*
Azure Key Vault provides a way to securely store credentials and other keys and secrets, but your code needs to authenticate to Key Vault to retrieve them.
Managed identities for Azure resources overview makes solving this problem simpler, by giving Azure services an automatically managed identity in Azure Active
Directory (Azure AD). You can use this identity to authenticate to any service that supports Azure AD authentication, including Key Vault, without having any credentials in your code.
Example: How a system-assigned managed identity works with an Azure VM
After the VM has an identity, use the service principal information to grant the VM access to Azure resources. To call Azure Resource Manager, use role-based access control (RBAC) in Azure AD to assign the appropriate role to the VM service principal. To call Key Vault, grant your code access to the specific secret or key in Key Vault.
References:
https://docs.microsoft.com/en-us/azure/key-vault/quick-create-net https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview

Question #8

Topic 4

You have an Azure SQL database.
You implement Always Encrypted.
You need to ensure that application developers can retrieve and decrypt data in the database.
Which two pieces of information should you provide to the developers? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. a stored access policy

B. a shared access signature (SAS)

C. the column encryption key

D. user credentials

E. the column master key

Correct Answer: *CE*
Always Encrypted uses two types of keys: column encryption keys and column master keys. A column encryption key is used to encrypt data in an encrypted column. A column master key is a key-protecting key that encrypts one or more column encryption keys.
References:
https://docs.microsoft.com/en-us/sql/relational-databases/security/encryption/always-encrypted-database-engine

Question #9 *Topic 4*

You have a hybrid configuration of Azure Active Directory (Azure AD).
All users have computers that run Windows 10 and are hybrid Azure AD joined.
You have an Azure SQL database that is configured to support Azure AD authentication.
Database developers must connect to the SQL database by using Microsoft SQL Server Management Studio (SSMS) and authenticate by using their on-premises
Active Directory account.
You need to tell the developers which authentication method to use to connect to the SQL database from SSMS. The solution must minimize authentication prompts.
Which authentication method should you instruct the developers to use?

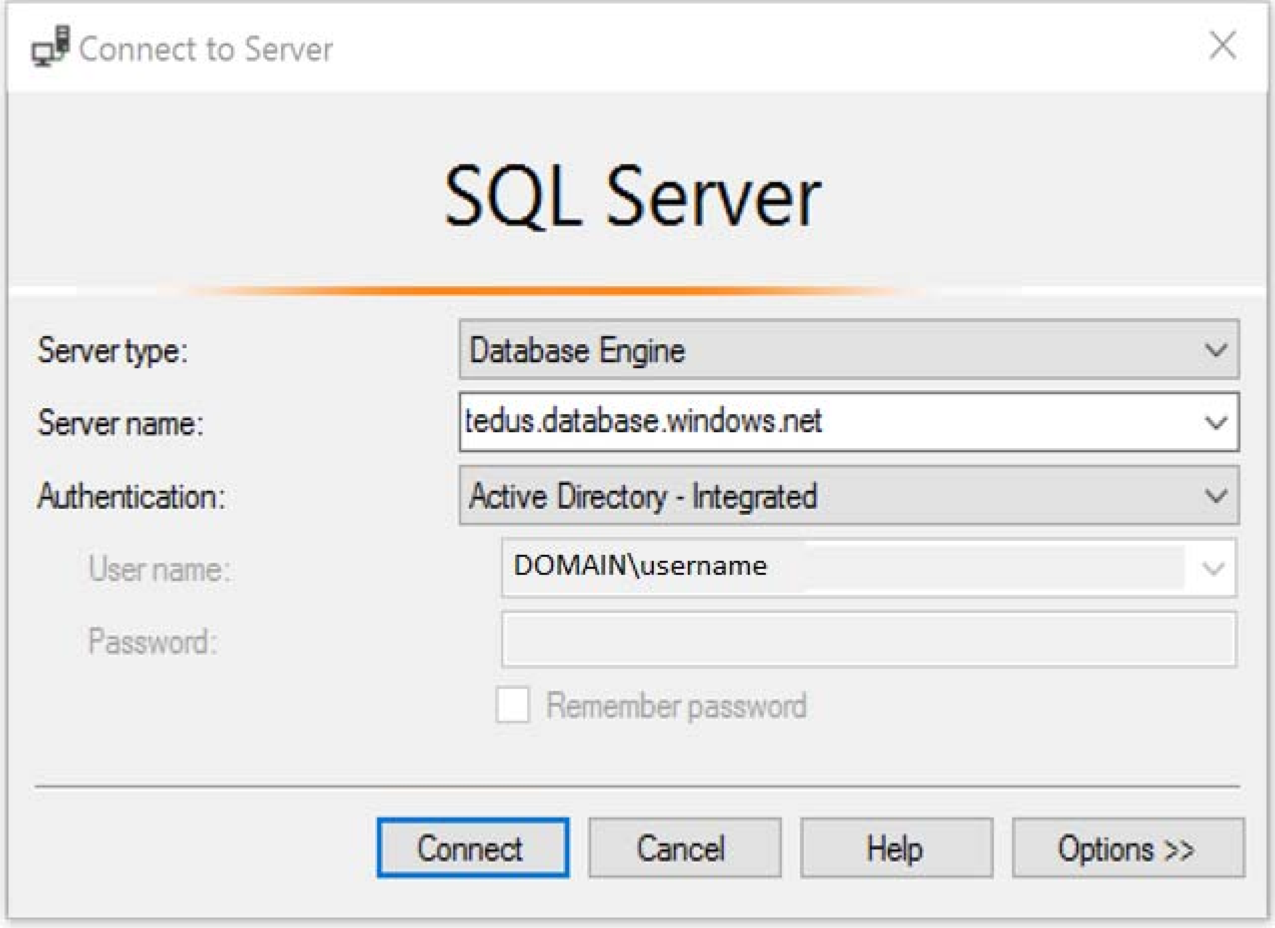
A. SQL Login

B. Active Directory "" Universal with MFA support

C. Active Directory "" Integrated

D. Active Directory "" Password

Correct Answer: *C*
Azure AD can be the initial Azure AD managed domain. Azure AD can also be an on-premises Active Directory Domain Services that is federated with the Azure
AD.
Using an Azure AD identity to connect using SSMS or SSDT
The following procedures show you how to connect to a SQL database with an Azure AD identity using SQL Server Management Studio or SQL Server Database
Tools.
Active Directory integrated authentication
Use this method if you are logged in to Windows using your Azure Active Directory credentials from a federated domain.
1. Start Management Studio or Data Tools and in the Connect to Server (or Connect to Database Engine) dialog box, in the Authentication box, select Active
Directory - Integrated. No password is needed or can be entered because your existing credentials will be presented for the connection.



Server type: Database Engine
Server name: tedus.database.windows.net
Authentication: Active Directory - Integrated
User name: DOMAIN\username
Password:
□ Remember password

2. Select the Options button, and on the Connection Properties page, in the Connect to database box, type the name of the user database you want to connect to.
(The AD domain name or tenant ID" option is only supported for Universal with MFA connection options, otherwise it is greyed out.)
References:
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/sql-database/sql-database-aad-authentication-configure.md

Question #10 *Topic 4*

DRAG DROP -

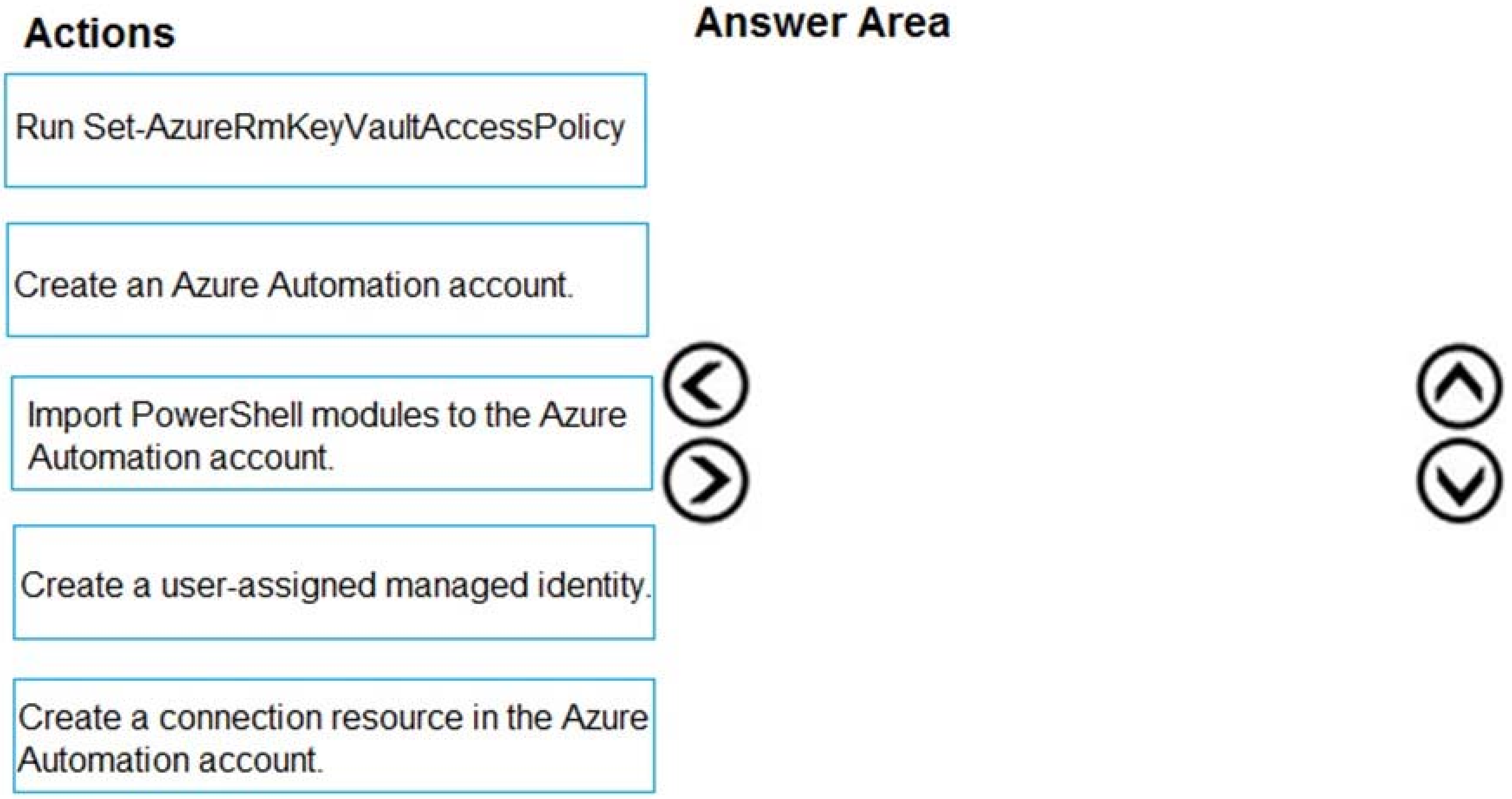
You have an Azure subscription named Sub1 that contains an Azure Storage account named Contosostorage1 and an Azure key vault named Contosokeyvault1.

You plan to create an Azure Automation runbook that will rotate the keys of Contosostorage1 and store them in Contosokeyvault1.

You need to implement prerequisites to ensure that you can implement the runbook.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



Actions

Run Set-AzureRmKeyVaultAccessPolicy

Create an Azure Automation account.

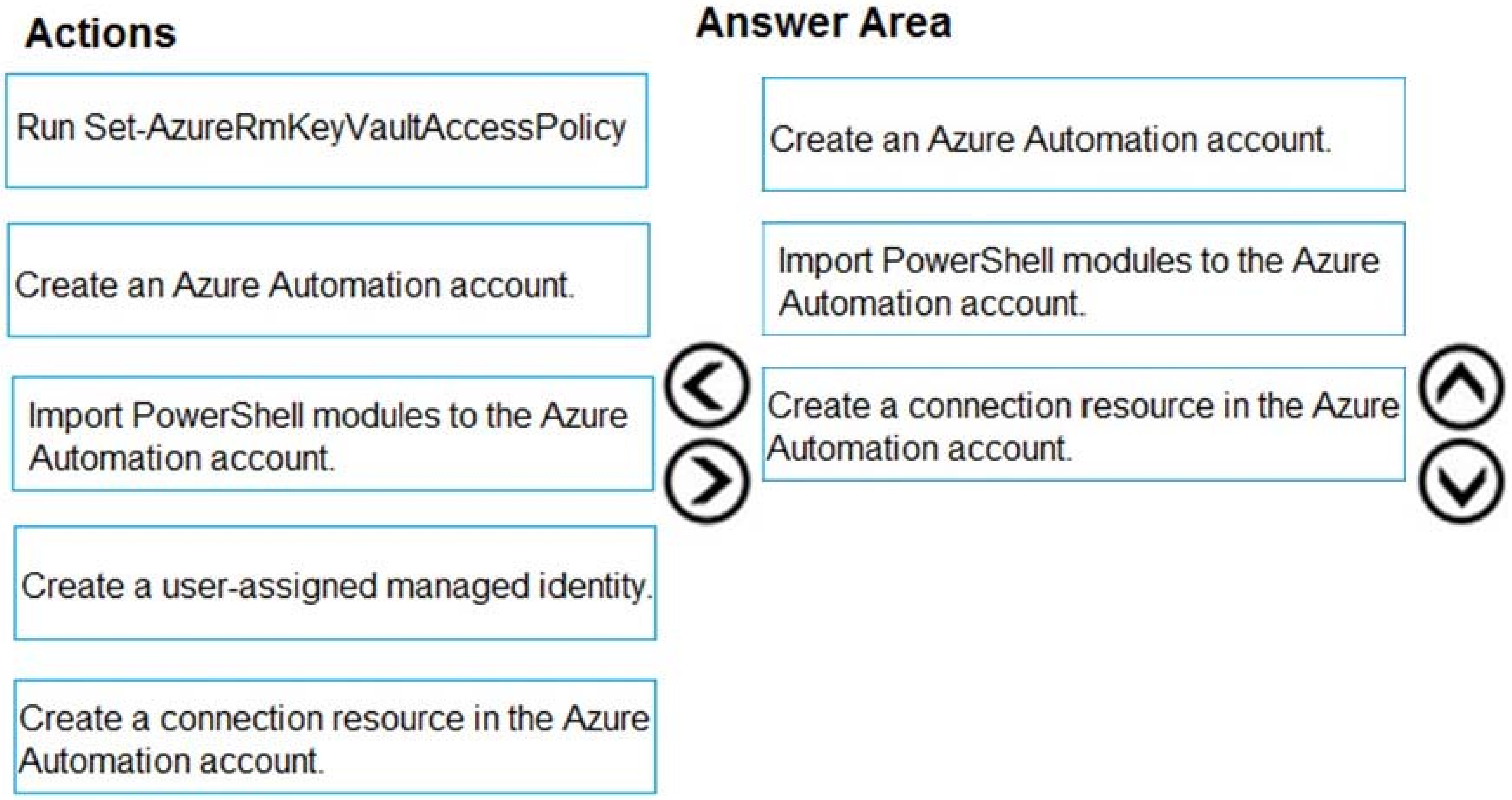
Import PowerShell modules to the Azure Automation account.

Create a user-assigned managed identity.

Create a connection resource in the Azure Automation account.

Answer Area

Correct Answer:



Actions

Run Set-AzureRmKeyVaultAccessPolicy

Create an Azure Automation account.

Import PowerShell modules to the Azure Automation account.

Create a user-assigned managed identity.

Create a connection resource in the Azure Automation account.

Answer Area

Create an Azure Automation account.

Import PowerShell modules to the Azure Automation account.

Create a connection resource in the Azure Automation account.

Step 1: Create an Azure Automation account

Runbooks live within the Azure Automation account and can execute PowerShell scripts.

Step 2: Import PowerShell modules to the Azure Automation account

Under "˜Assets' from the Azure Automation account Resources section select "˜to add in Modules to the runbook. To execute key vault cmdlets in the runbook, we need to add AzureRM.profile and AzureRM.key vault.

Step 3: Create a connection resource in the Azure Automation account

You can use the sample code below, taken from the AzureAutomationTutorialScript example runbook, to authenticate using the Run As account to manage

Resource Manager resources with your runbooks. The AzureRunAsConnection is a connection asset automatically created when we created "˜run as accounts' above. This can be found under Assets -> Connections. After the authentication code, run the same code above to get all the keys from the vault.

```
$connectionName = "AzureRunAsConnection"
try
{
# Get the connection "AzureRunAsConnection "
$servicePrincipalConnection=Get-AutomationConnection -Name $connectionName
"Logging in to Azure..."
Add-AzureRmAccount `
-ServicePrincipal `
-TenantId $servicePrincipalConnection.TenantId `
-ApplicationId $servicePrincipalConnection.ApplicationId `
-CertificateThumbprint $servicePrincipalConnection.CertificateThumbprint
}
```

References:
https://www.rahulpnath.com/blog/accessing-azure-key-vault-from-azure-runbook/

Question #11 *Topic 4*

You have an Azure SQL Database server named SQL1.
You plan to turn on Advanced Threat Protection for SQL1 to detect all threat detection types.
Which action will Advanced Threat Protection detect as a threat?

A. A user updates more than 50 percent of the records in a table.

B. A user attempts to sign as select * from table1.

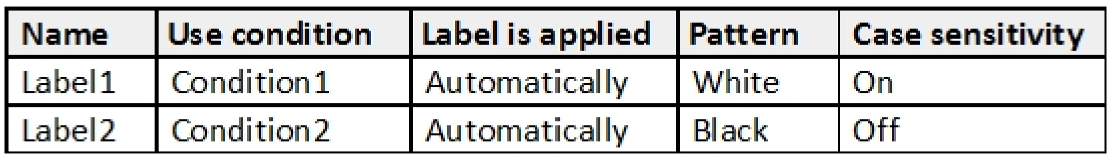
C. A user is added to the db_owner database role.

D. A user deletes more than 100 records from the same table.

Correct Answer: *B*
Advanced Threat Protection can detect potential SQL injections: This alert is triggered when an active exploit happens against an identified application vulnerability to SQL injection. This means the attacker is trying to inject malicious SQL statements using the vulnerable application code or stored procedures.
References:
https://docs.microsoft.com/en-us/azure/sql-database/sql-database-threat-detection-overview

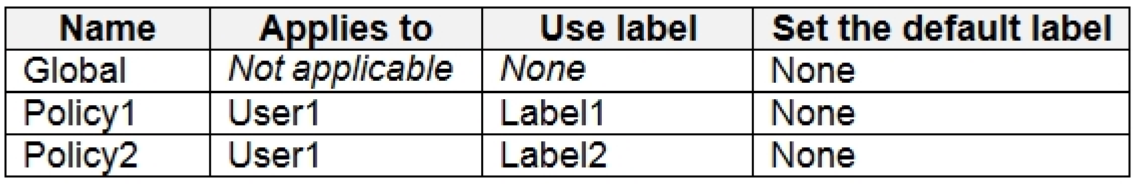
HOTSPOT -

You have the Azure Information Protection conditions shown in the following table.



Name	Use condition	Label is applied	Pattern	Case sensitivity
Label1	Condition1	Automatically	White	On
Label2	Condition2	Automatically	Black	Off

You have the Azure Information Protection policies shown in the following table.



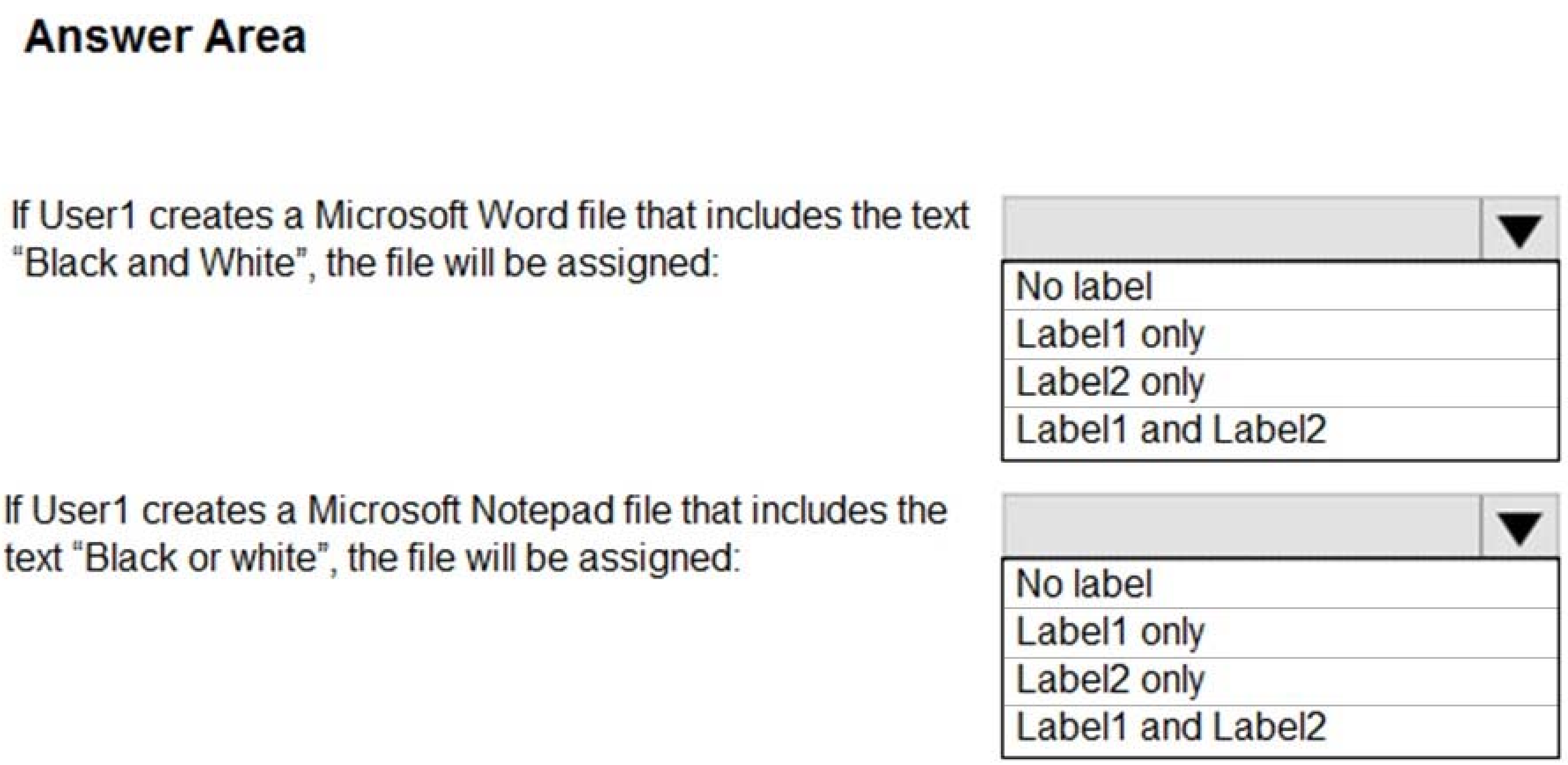
Name	Applies to	Use label	Set the default label
Global	*Not applicable*	*None*	None
Policy1	User1	Label1	None
Policy2	User1	Label2	None

You need to identify how Azure Information Protection will label files.

What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

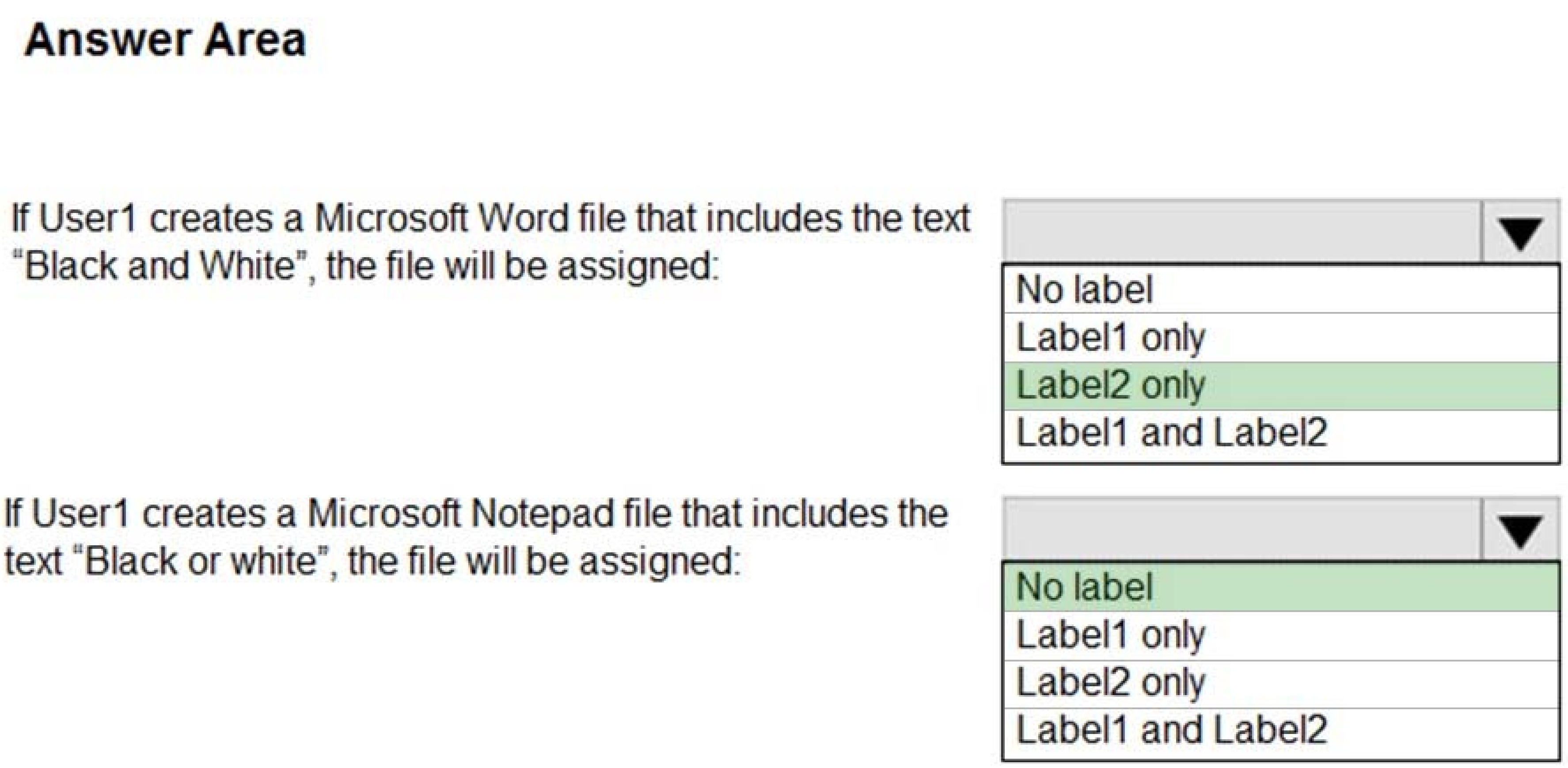
If User1 creates a Microsoft Word file that includes the text "Black and White", the file will be assigned:

- No label
- Label1 only
- Label2 only
- Label1 and Label2

If User1 creates a Microsoft Notepad file that includes the text "Black or white", the file will be assigned:

- No label
- Label1 only
- Label2 only
- Label1 and Label2

Correct Answer:



Answer Area

If User1 creates a Microsoft Word file that includes the text "Black and White", the file will be assigned:

- No label
- Label1 only
- [✓ Label2 only]
- Label1 and Label2

If User1 creates a Microsoft Notepad file that includes the text "Black or white", the file will be assigned:

- [✓ No label]
- Label1 only
- Label2 only
- Label1 and Label2

Box 1: Label 2 only -

How multiple conditions are evaluated when they apply to more than one label

1. The labels are ordered for evaluation, according to their position that you specify in the policy: The label positioned first has the lowest position (least sensitive) and the label positioned last has the highest position (most sensitive).

2. The most sensitive label is applied.
3. The last sublabel is applied.

Box 2: No Label -
Automatic classification applies to Word, Excel, and PowerPoint when documents are saved, and apply to Outlook when emails are sent.
Automatic classification does not apply to Microsoft Notepad.
References:
https://docs.microsoft.com/en-us/azure/information-protection/configure-policy-classification

Question #13 *Topic 4*

Your company uses Azure DevOps.
You need to recommend a method to validate whether the code meets the company's quality standards and code review standards.
What should you recommend implementing in Azure DevOps?

A. branch folders

B. branch permissions

C. branch policies

D. branch locking

Correct Answer: *C*
Branch policies help teams protect their important branches of development. Policies enforce your team's code quality and change management standards.
References:
https://docs.microsoft.com/en-us/azure/devops/repos/git/branch-policies?view=azure-devops&viewFallbackFrom=vsts

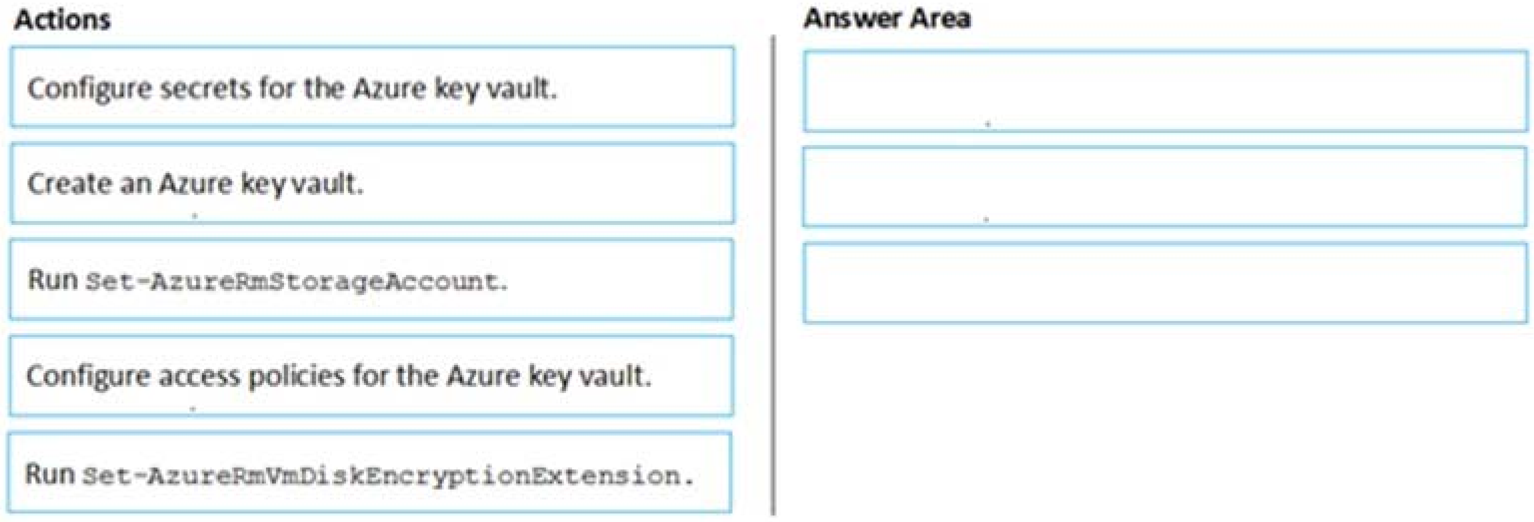
DRAG DROP -

You have an Azure subscription named Sub1. Sub1 contains an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to encrypt VM1 disks by using Azure Disk Encryption.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

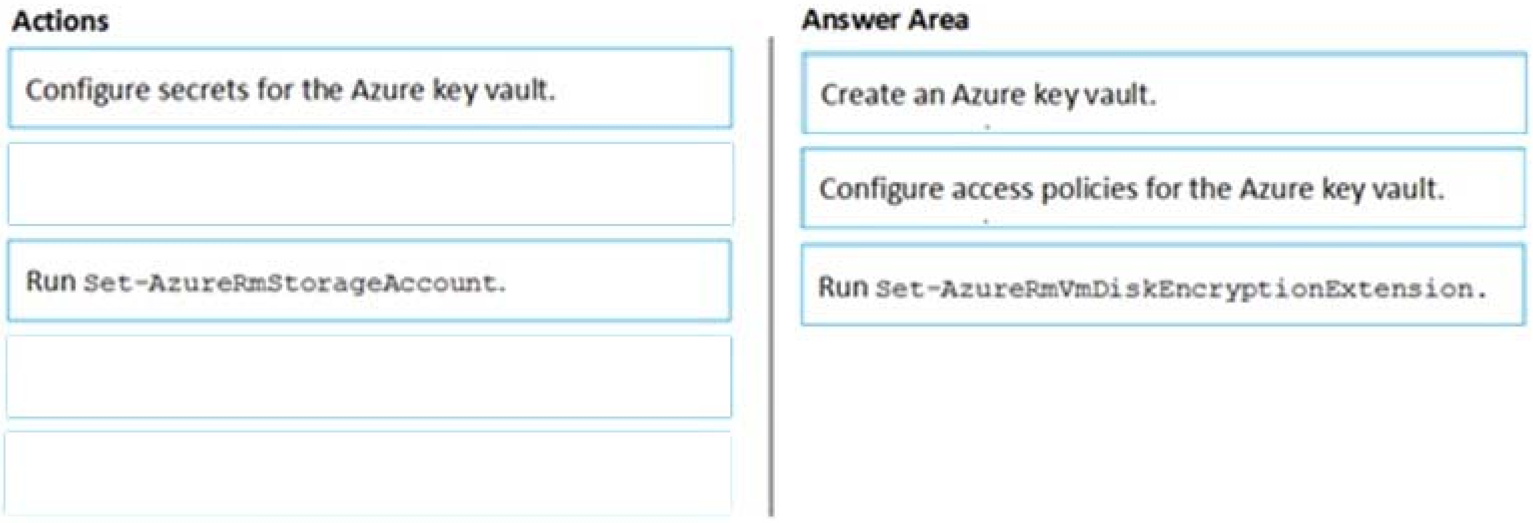


Actions

- Configure secrets for the Azure key vault.
- Create an Azure key vault.
- Run `Set-AzureRmStorageAccount`.
- Configure access policies for the Azure key vault.
- Run `Set-AzureRmVmDiskEncryptionExtension`.

Answer Area

Correct Answer:



Actions

- Configure secrets for the Azure key vault.
- Run `Set-AzureRmStorageAccount`.

Answer Area

- Create an Azure key vault.
- Configure access policies for the Azure key vault.
- Run `Set-AzureRmVmDiskEncryptionExtension`.

Reference:

https://docs.microsoft.com/en-us/azure/virtual-machines/windows/encrypt-disks

Question #15 *Topic 4*

You have an Azure subscription that contains a virtual machine named VM1.

You create an Azure key vault that has the following configurations:

➢ Name: Vault5

➢ Region: West US

➢ Resource group: RG1

You need to use Vault5 to enable Azure Disk Encryption on VM1. The solution must support backing up VM1 by using Azure Backup.

Which key vault settings should you configure?

A. Access policies

B. Secrets

C. Keys

D. Locks

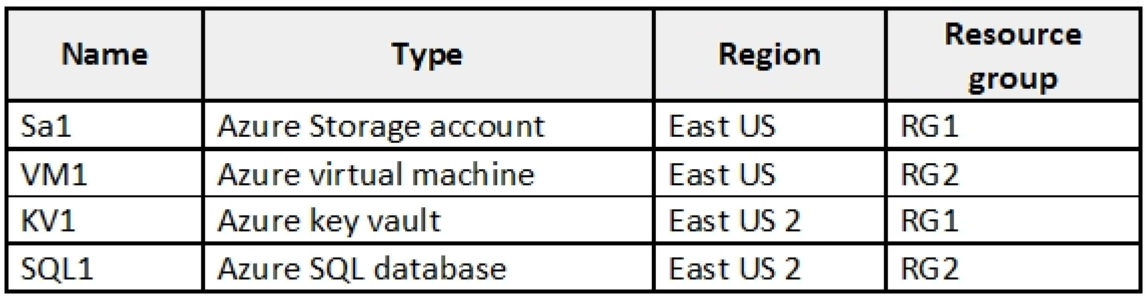
Correct Answer: *A*

References:

https://docs.microsoft.com/en-us/azure/key-vault/key-vault-secure-your-key-vault

Question #16 *Topic 4*

You have an Azure subscription named Sub1 that contains the resources shown in the following table.



Name	Type	Region	Resource group
Sa1	Azure Storage account	East US	RG1
VM1	Azure virtual machine	East US	RG2
KV1	Azure key vault	East US 2	RG1
SQL1	Azure SQL database	East US 2	RG2

You need to ensure that you can provide VM1 with secure access to a database on SQL1 by using a contained database user.

What should you do?

A. Enable a managed service identity on VM1.

B. Create a secret in KV1.

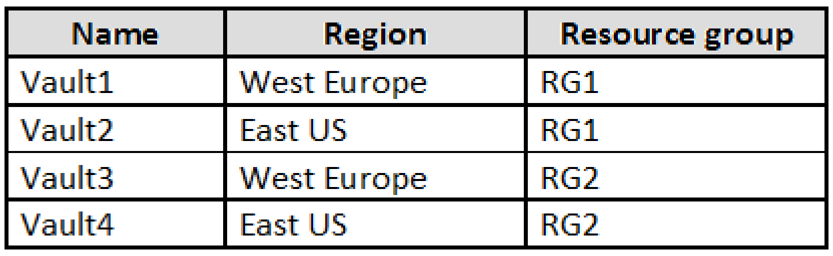
C. Configure a service endpoint on SQL1.

D. Create a key in KV1.

Correct Answer: *B*

Question #17 *Topic 4*

You have an Azure subscription named Sub1 that contains the Azure key vaults shown in the following table:



Name	Region	Resource group
Vault1	West Europe	RG1
Vault2	East US	RG1
Vault3	West Europe	RG2
Vault4	East US	RG2

In Sub1, you create a virtual machine that has the following configurations:

✑ Name: VM1

✑ Size: DS2v2

✑ Resource group: RG1

✑ Region: West Europe

✑ Operating system: Windows Server 2016

You plan to enable Azure Disk Encryption on VM1.

In which key vaults can you store the encryption key for VM1?

A. Vault1 or Vault3 only

B. Vault1, Vault2, Vault3, or Vault4

C. Vault1 only

D. Vault1 or Vault2 only

Correct Answer: *A*

In order to make sure the encryption secrets don't cross regional boundaries, Azure Disk Encryption needs the Key Vault and the VMs to be co-located in the same region. Create and use a Key Vault that is in the same region as the VM to be encrypted.

Reference:

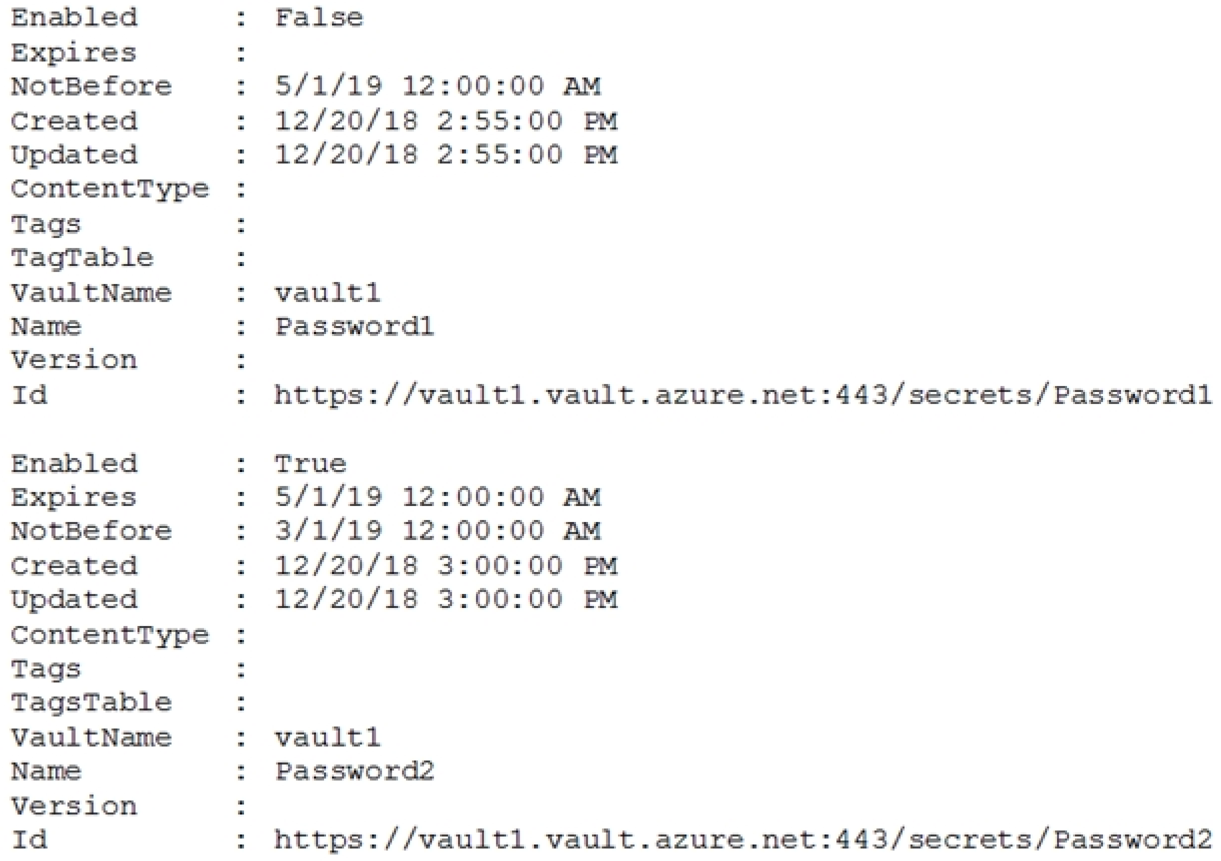
https://docs.microsoft.com/en-us/azure/security/azure-security-disk-encryption-prerequisites

Question #18 *Topic 4*

HOTSPOT -

You have an Azure subscription that contains an Azure key vault named Vault1.

On January 1, 2019, Vault1 stores the following secrets.

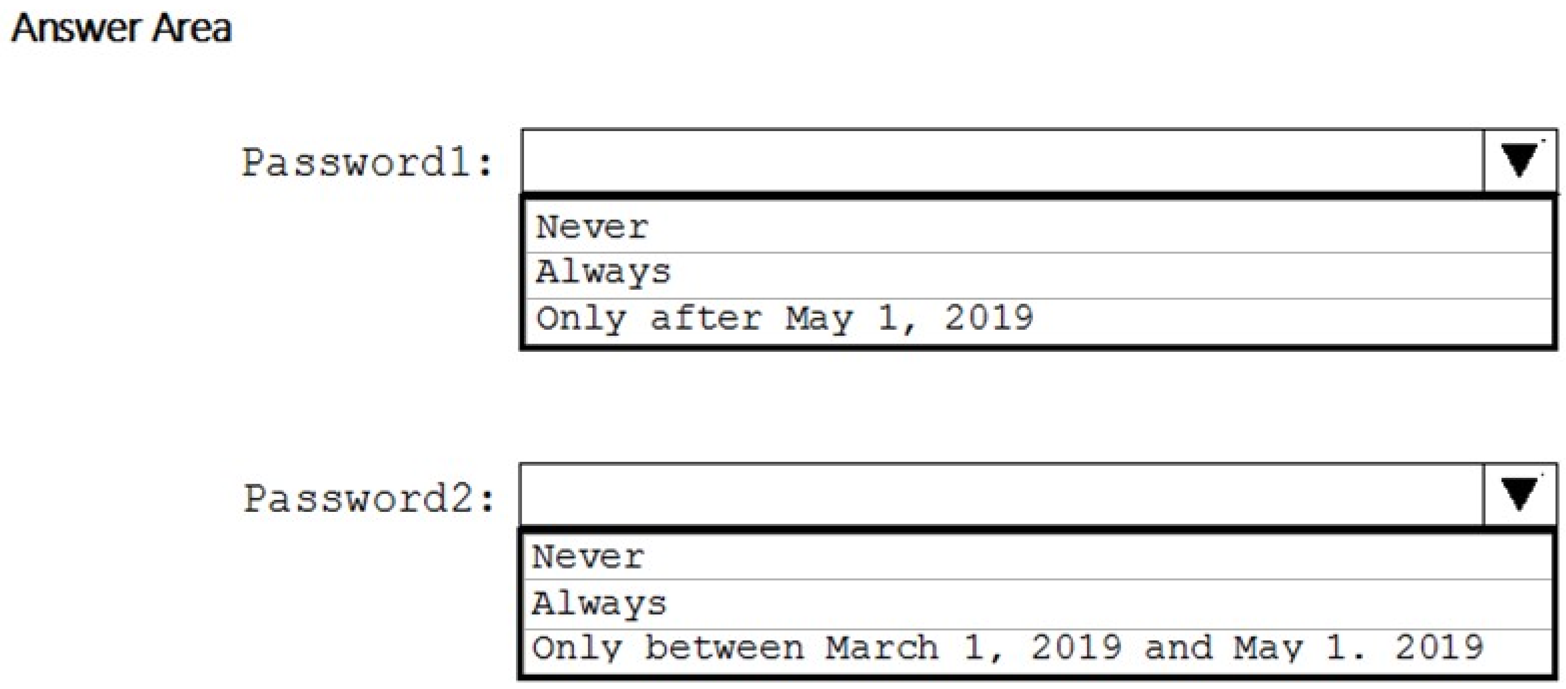


```
Enabled     : False
Expires     :
NotBefore   : 5/1/19 12:00:00 AM
Created     : 12/20/18 2:55:00 PM
Updated     : 12/20/18 2:55:00 PM
ContentType :
Tags        :
TagTable    :
VaultName   : vault1
Name        : Password1
Version     :
Id          : https://vault1.vault.azure.net:443/secrets/Password1

Enabled     : True
Expires     : 5/1/19 12:00:00 AM
NotBefore   : 3/1/19 12:00:00 AM
Created     : 12/20/18 3:00:00 PM
Updated     : 12/20/18 3:00:00 PM
ContentType :
Tags        :
TagsTable   :
VaultName   : vault1
Name        : Password2
Version     :
Id          : https://vault1.vault.azure.net:443/secrets/Password2
```

Which can each secret be used by an application? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

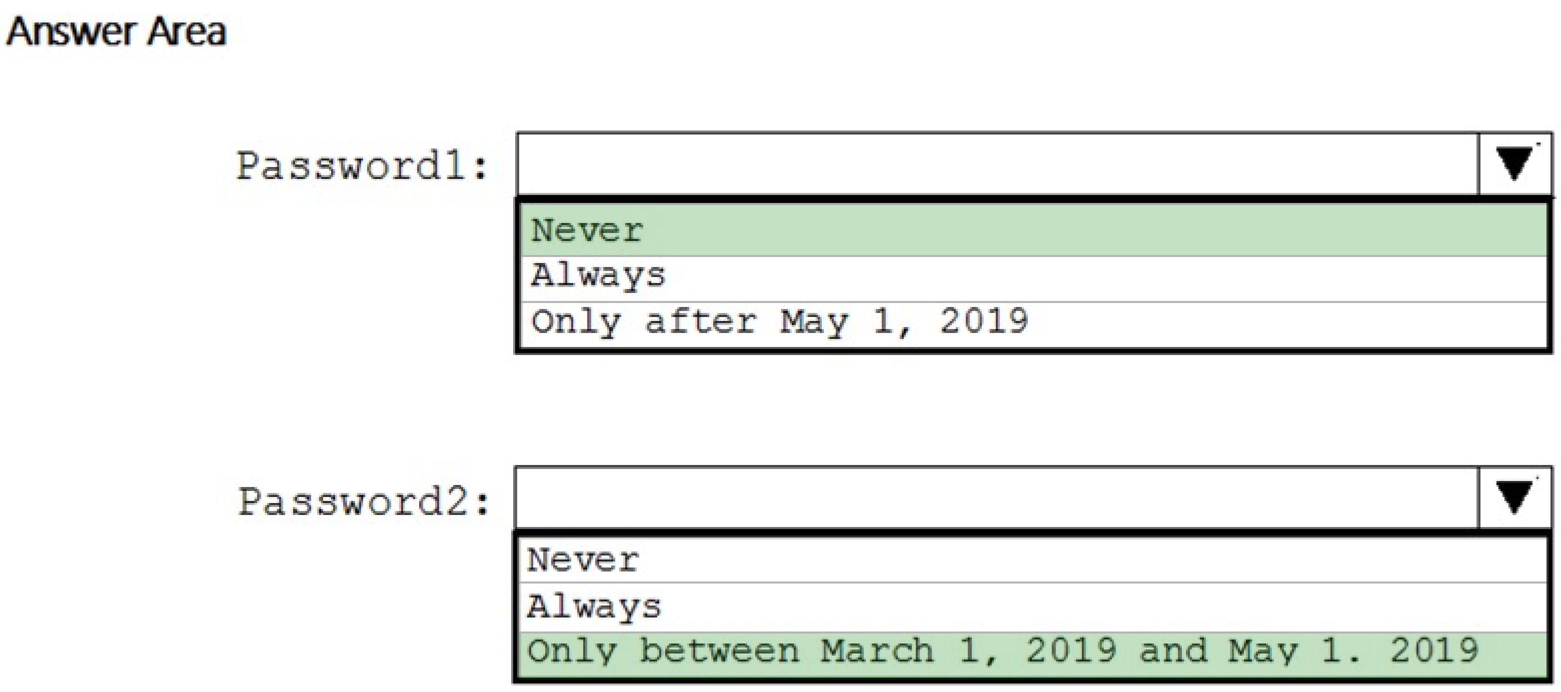


Answer Area

Password1:
- Never
- Always
- Only after May 1, 2019

Password2:
- Never
- Always
- Only between March 1, 2019 and May 1. 2019

Correct Answer:



Answer Area

Password1:
- [✓ Never]
- Always
- Only after May 1, 2019

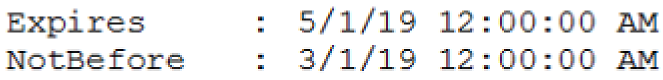
Password2:
- Never
- Always
- [✓ Only between March 1, 2019 and May 1. 2019]

Box 1: Never -

Password1 is disabled.

Box 2: Only between March 1, 2019 and May 1,

Password2:



```
Expires      : 5/1/19 12:00:00 AM
NotBefore    : 3/1/19 12:00:00 AM
```

Reference:

https://docs.microsoft.com/en-us/powershell/module/azurerm.keyvault/set-azurekeyvaultsecretattribute

Question #19 *Topic 4*

You have an Azure web app named webapp1.

You need to configure continuous deployment for webapp1 by using an Azure Repo.

What should you create first?

A. an Azure Application Insights service

B. an Azure DevOps organizations

C. an Azure Storage account

D. an Azure DevTest Labs lab

Correct Answer: *B*

To use Azure Repos, make sure your Azure DevOps organization is linked to your Azure subscription.

Reference:

https://docs.microsoft.com/en-us/azure/app-service/deploy-continuous-deployment

Topic 5 - Testlet 1

Question #1 *Topic 5*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.

The Azure subscription contains the objects shown in the following table.

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.

Identity and Access Requirements

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

Question

You need to meet the identity and access requirements for Group1.

What should you do?

A. Add a membership rule to Group1.

B. Delete Group1. Create a new group named Group1 that has a membership type of Office 365. Add users and devices to the group.

C. Modify the membership rule of Group1.

D. Change the membership type of Group1 to Assigned. Create two groups that have dynamic memberships. Add the new groups to Group1.

Correct Answer: *B*

Incorrect Answers:

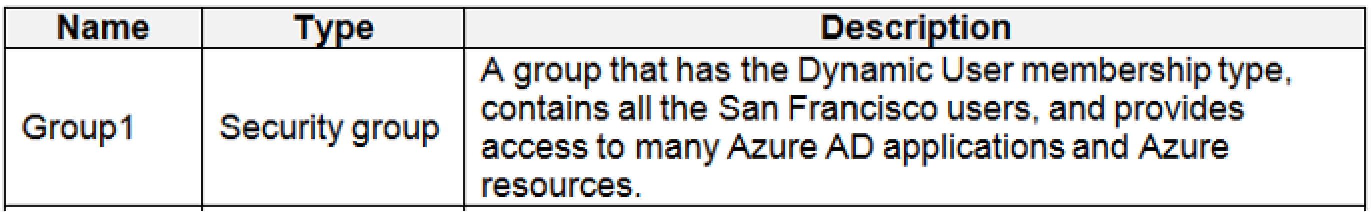
A, C: You can create a dynamic group for devices or for users, but you can't create a rule that contains both users and devices.

D: For assigned group you can only add individual members.

Scenario:

Litware identifies the following identity and access requirements: All San Francisco users and their devices must be members of Group1.

The tenant currently contain this group:



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.

References:

https://docs.microsoft.com/en-us/azure/active-directory/users-groups-roles/groups-dynamic-membership https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-groups-create-azure-portal

Topic 6 - Testlet 2

Question #1 Topic 6

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

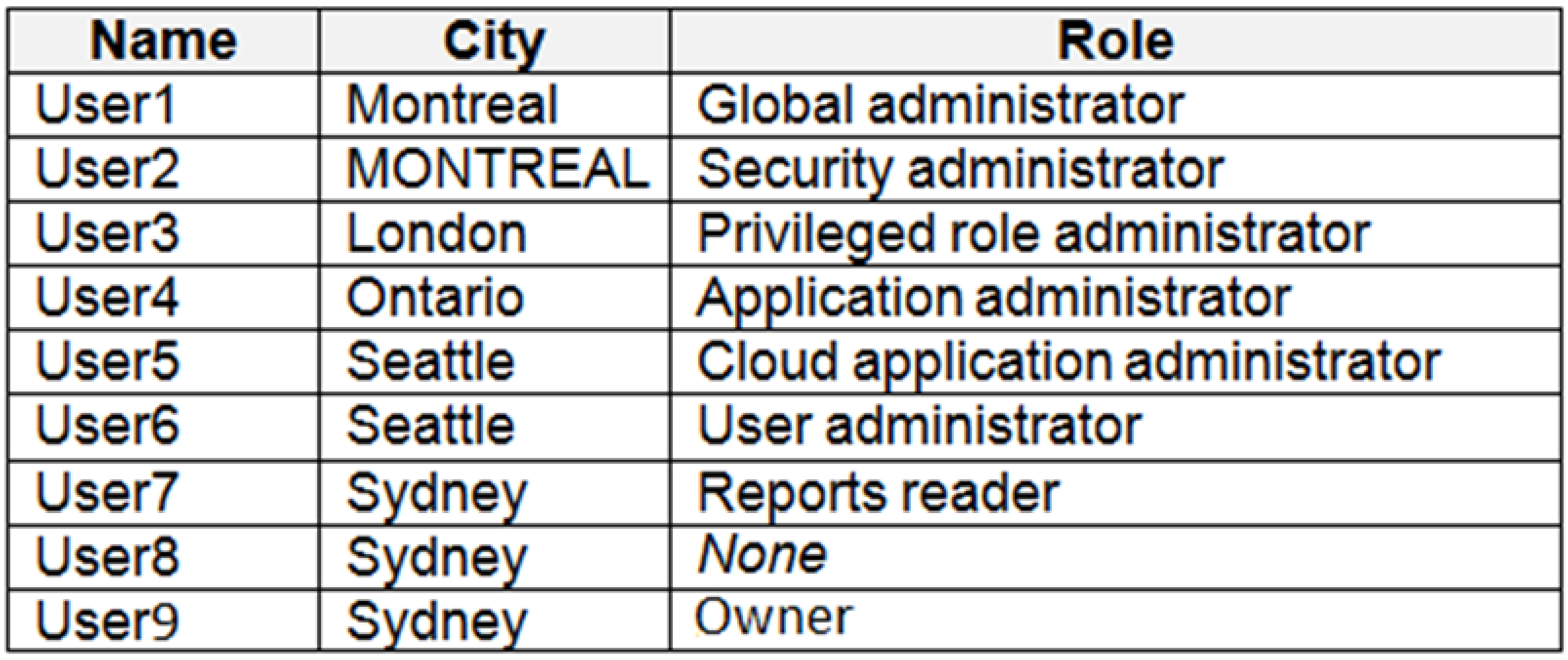
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

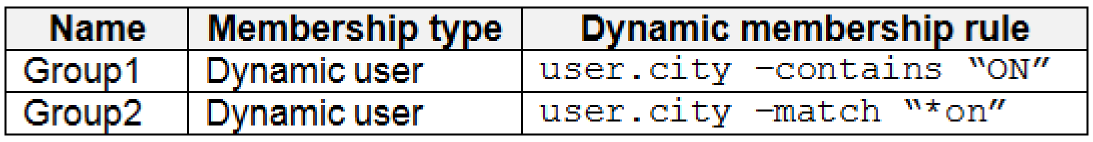
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

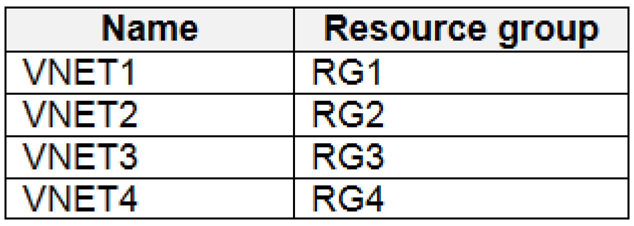


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1 -

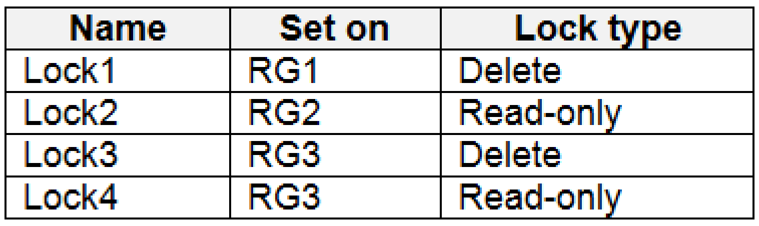
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



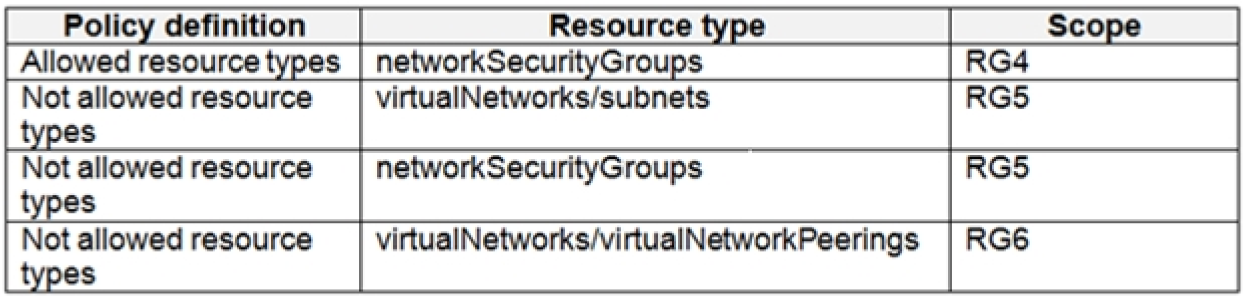
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

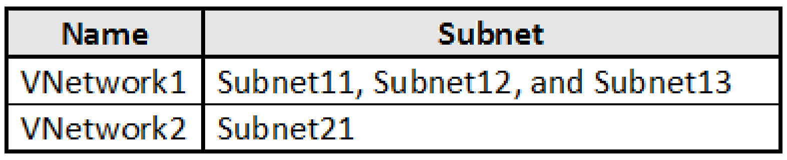
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

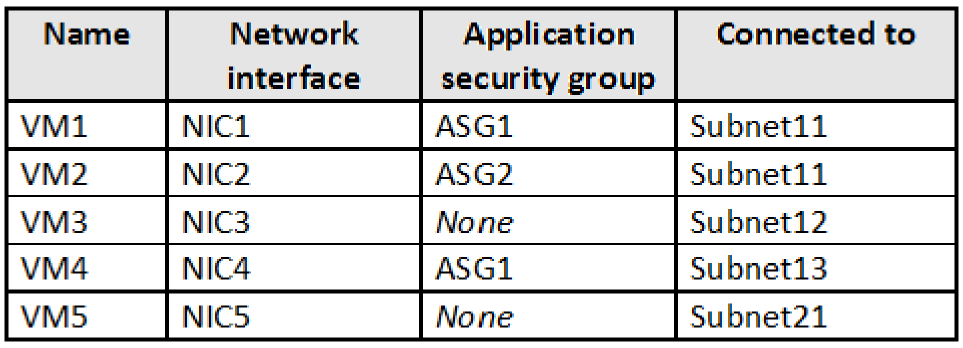
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

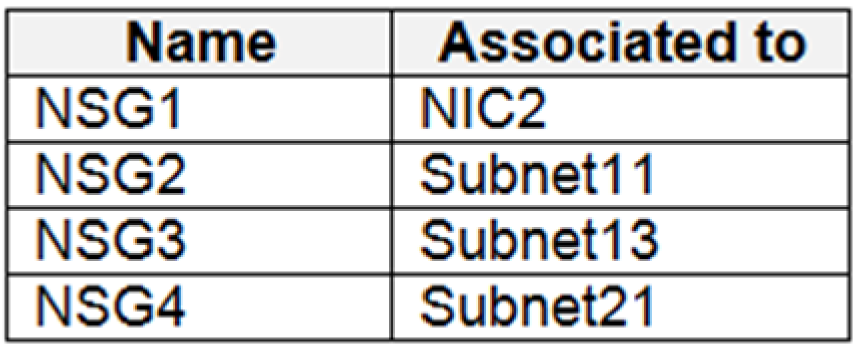
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

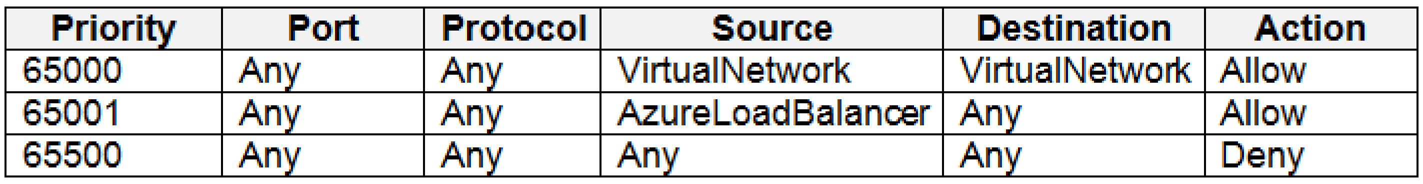
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



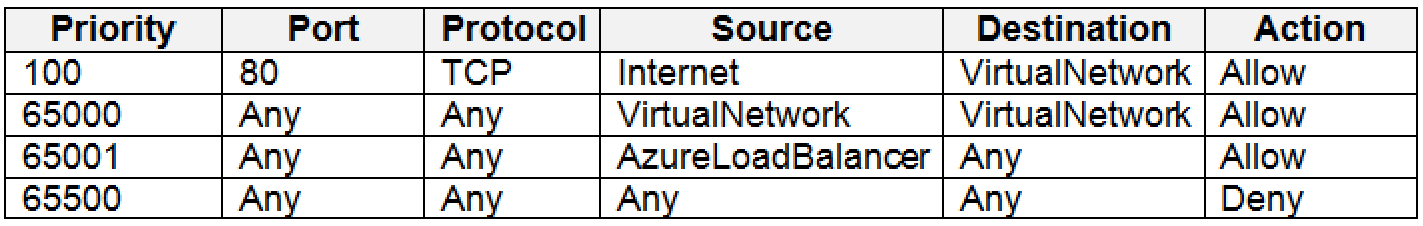
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



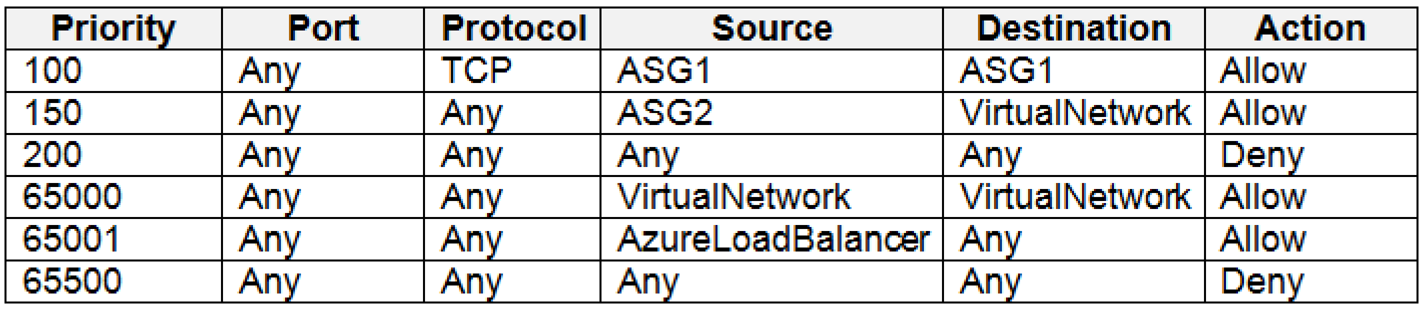
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



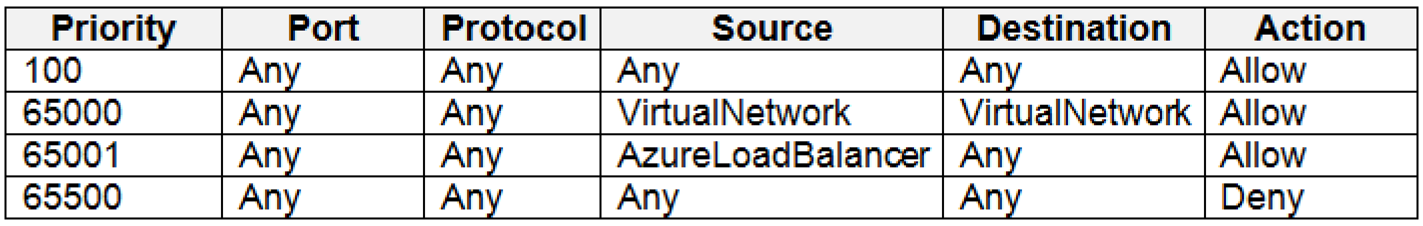
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



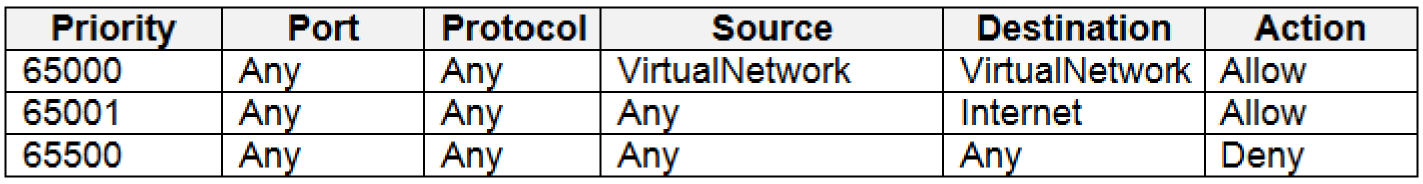
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

Question

You need to ensure that User2 can implement PIM.

What should you do first?

A. Assign User2 the Global administrator role.

B. Configure authentication methods for contoso.com.

C. Configure the identity secure score for contoso.com.

D. Enable multi-factor authentication (MFA) for User2.

Correct Answer: *A*

To start using PIM in your directory, you must first enable PIM.

1. Sign in to the Azure portal as a Global Administrator of your directory.

You must be a Global Administrator with an organizational account (for example, @yourdomain.com), not a Microsoft account (for example, @outlook.com), to enable PIM for a directory.

Scenario: Technical requirements include: Enable Azure AD Privileged Identity Management (PIM) for contoso.com

References:

https://docs.microsoft.com/bs-latn-ba/azure/active-directory/privileged-identity-management/pim-getting-started

Topic 7 - Testlet 3

Question #1 *Topic 7*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

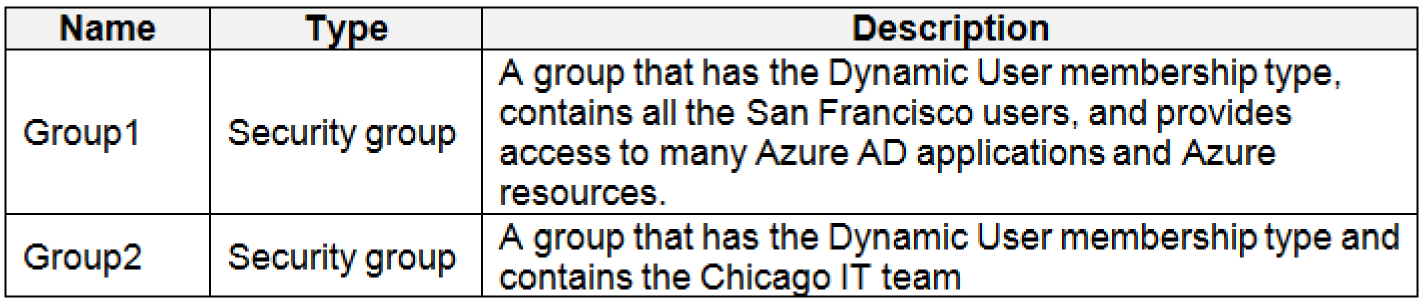
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

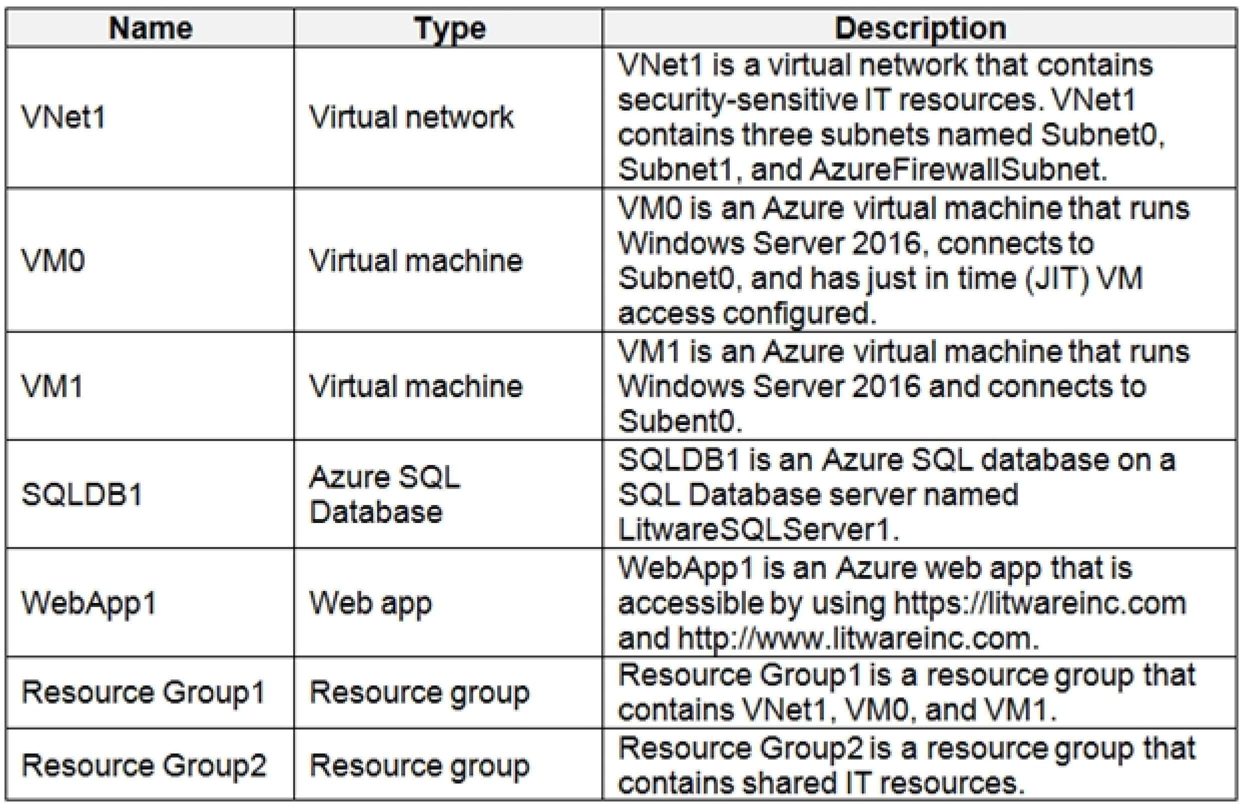
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



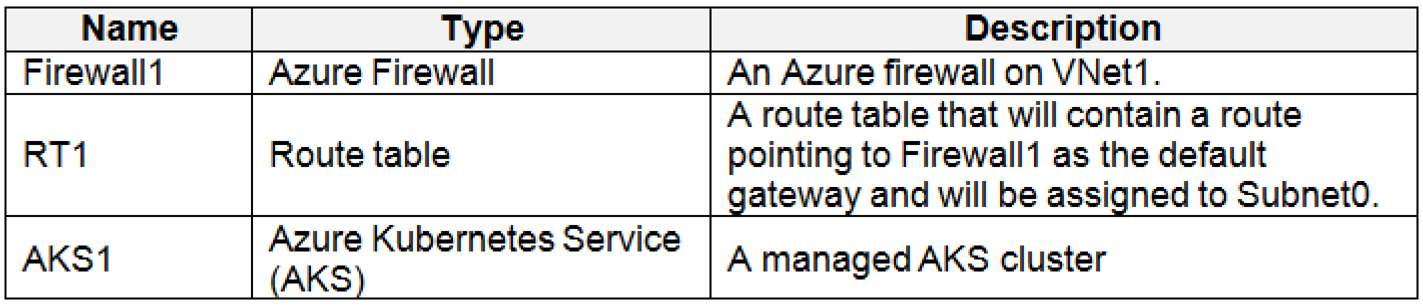
Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Identity and Access Requirements

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

Question

You need to ensure that users can access VM0. The solution must meet the platform protection requirements.

What should you do?

A. Move VM0 to Subnet1.

B. On Firewall, configure a network traffic filtering rule.

C. Assign RT1 to AzureFirewallSubnet.

D. On Firewall, configure a DNAT rule.

Correct Answer: *A*

Azure Firewall has the following known issue:

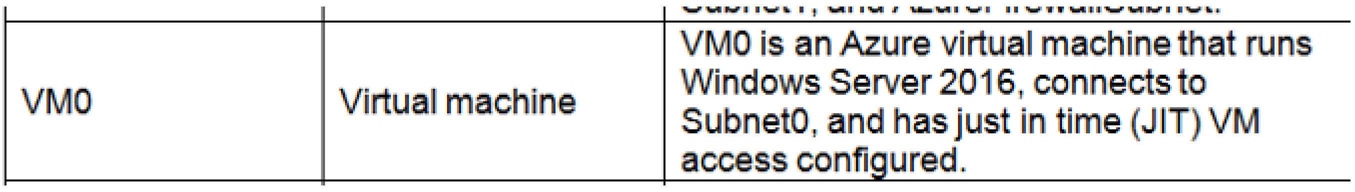
Conflict with Azure Security Center (ASC) Just-in-Time (JIT) feature.

If a virtual machine is accessed using JIT, and is in a subnet with a user-defined route that points to Azure Firewall as a default gateway, ASC JIT doesn't work.

This is a result of asymmetric routing "" a packet comes in via the virtual machine public IP (JIT opened the access), but the return path is via the firewall, which drops the packet because there is no established session on the firewall.

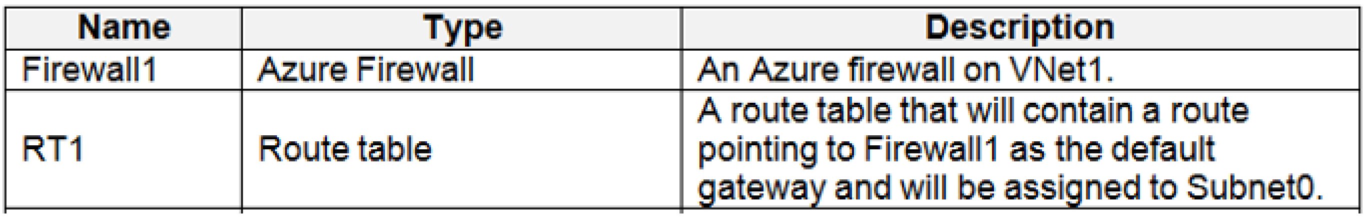
Solution: To work around this issue, place the JIT virtual machines on a separate subnet that doesn't have a user-defined route to the firewall.

Scenario:



		Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.

References:

https://docs.microsoft.com/en-us/azure/firewall/overview

Question #2 *Topic 7*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

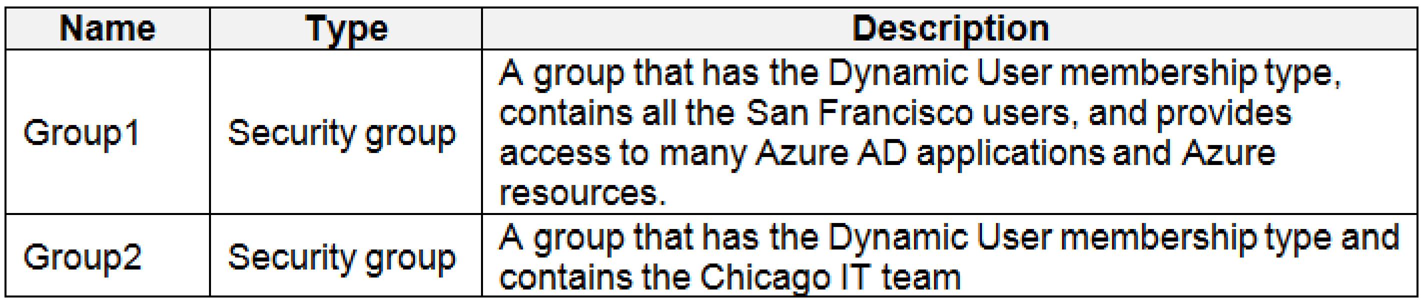
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

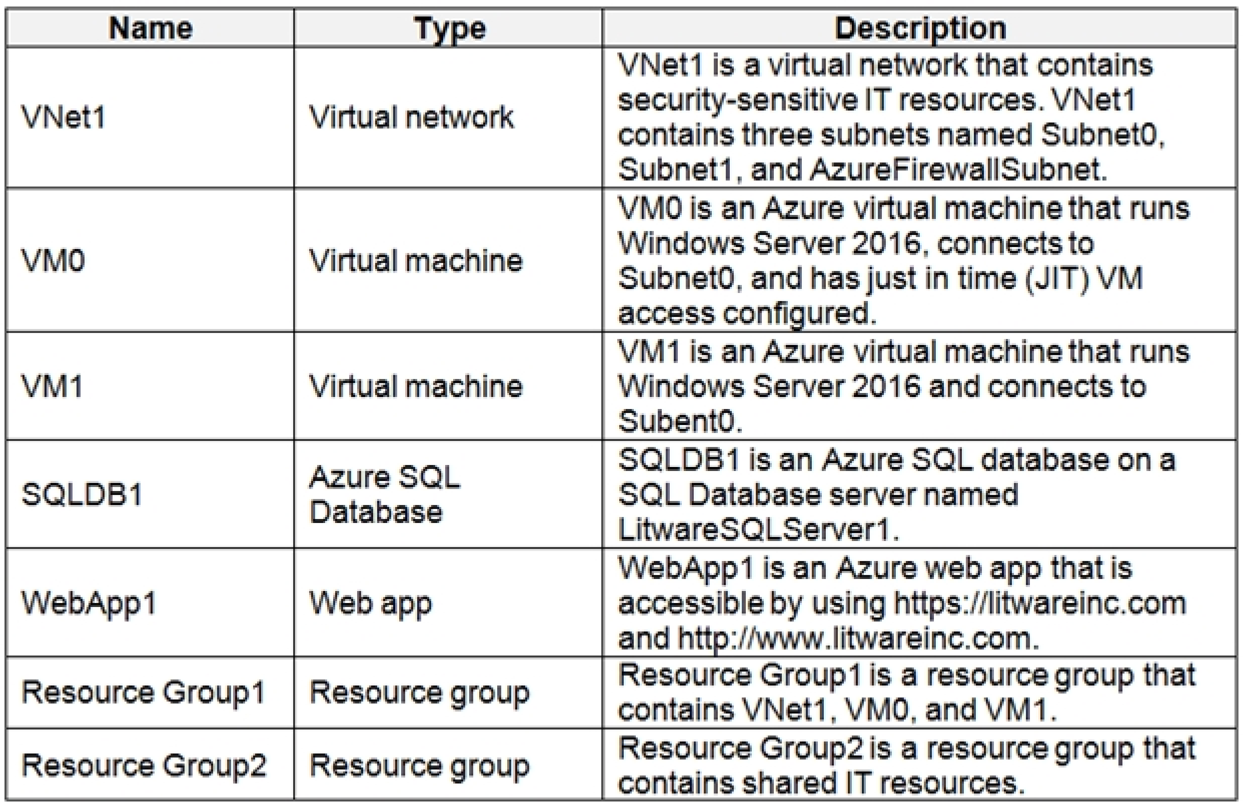
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



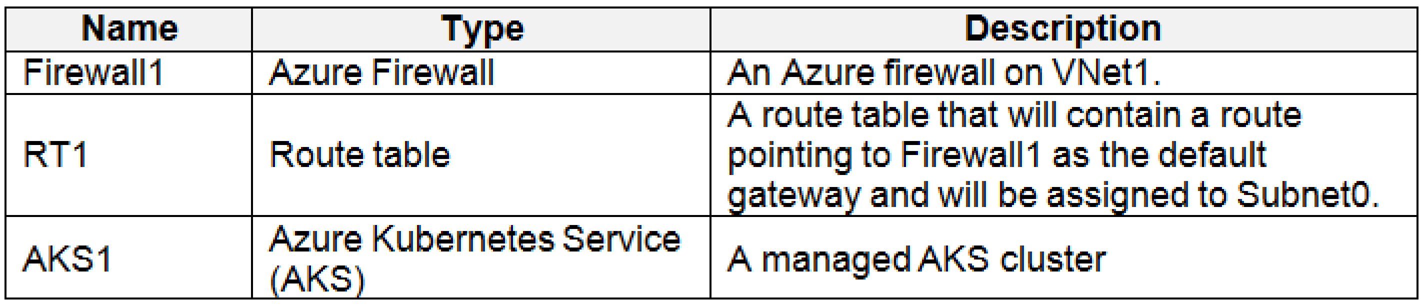
Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Identity and Access Requirements

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

Question

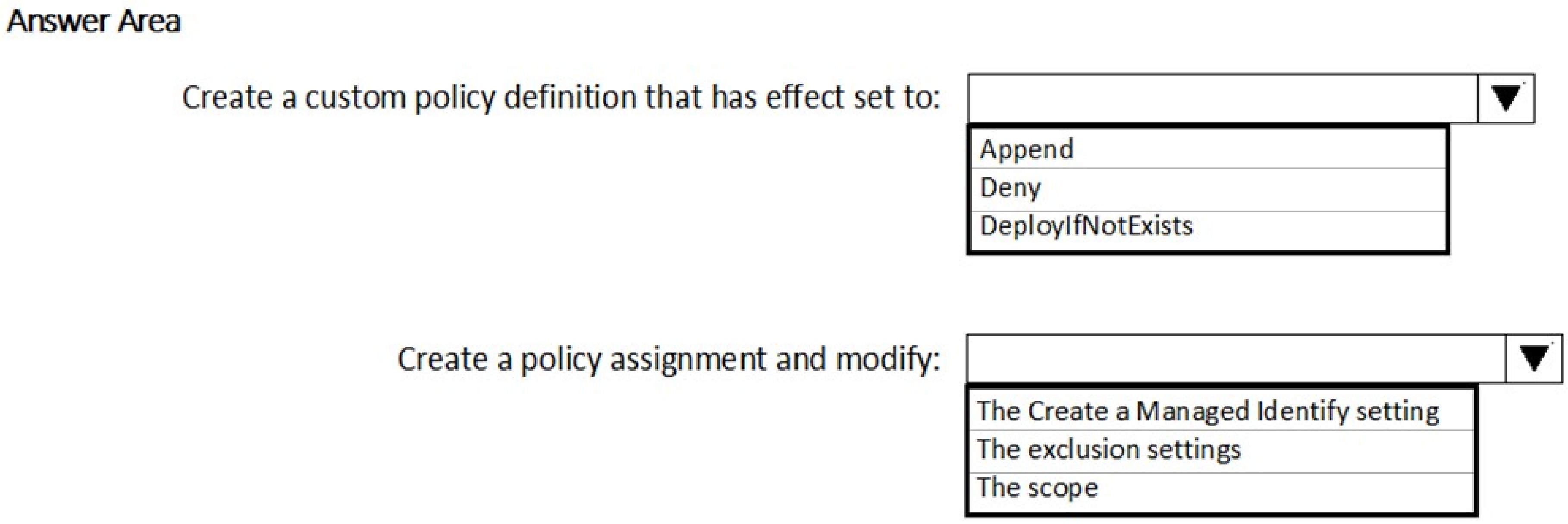
HOTSPOT -

You need to deploy Microsoft Antimalware to meet the platform protection requirements.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

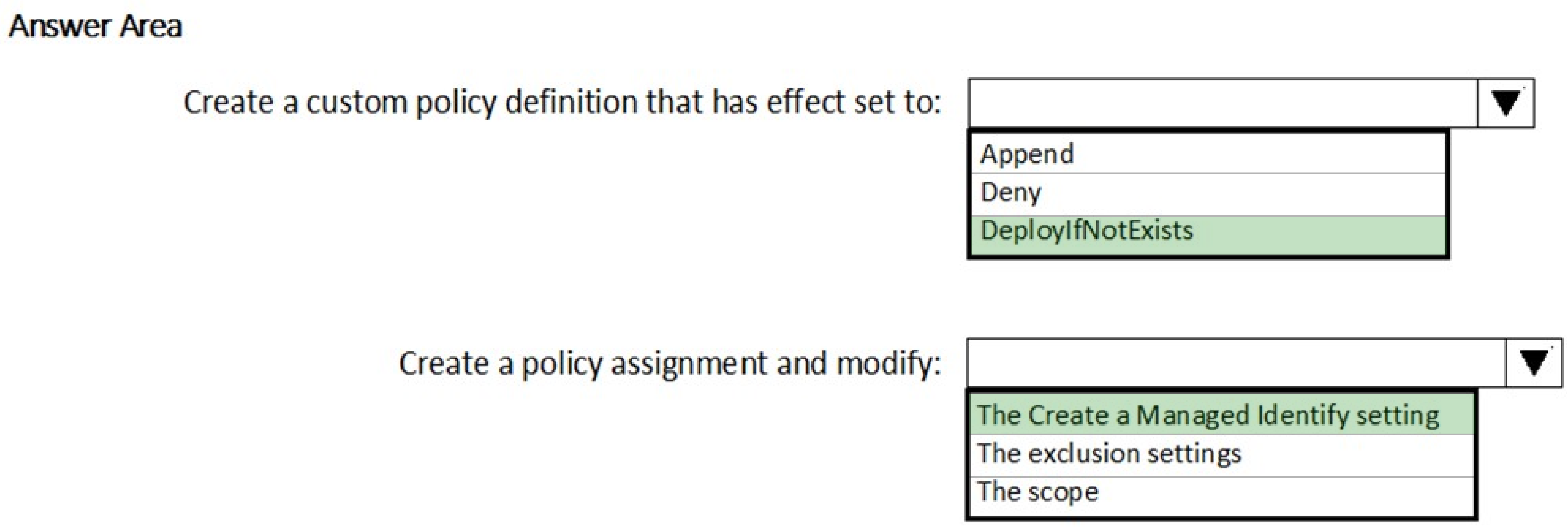
Create a custom policy definition that has effect set to: ▼

- Append
- Deny
- DeployIfNotExists

Create a policy assignment and modify: ▼

- The Create a Managed Identify setting
- The exclusion settings
- The scope

Correct Answer:



Answer Area

Create a custom policy definition that has effect set to:

- Append
- Deny
- [✓ DeployIfNotExists]

Create a policy assignment and modify:

- [✓ The Create a Managed Identify setting]
- The exclusion settings
- The scope

Scenario: Microsoft Antimalware must be installed on the virtual machines in RG1.
RG1 is a resource group that contains Vnet1, VM0, and VM1.

Box 1: DeployIfNotExists -
DeployIfNotExists executes a template deployment when the condition is met.
Azure policy definition Antimalware
Incorrect Answers:
Append:
Append is used to add additional fields to the requested resource during creation or update. A common example is adding tags on resources such as costCenter or specifying allowed IPs for a storage resource.
Deny:
Deny is used to prevent a resource request that doesn't match defined standards through a policy definition and fails the request.
Box 2: The Create a Managed Identity setting
When Azure Policy runs the template in the deployIfNotExists policy definition, it does so using a managed identity. Azure Policy creates a managed identity for each assignment, but must have details about what roles to grant the managed identity.
Reference:
https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects

Question #3 Topic 7

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

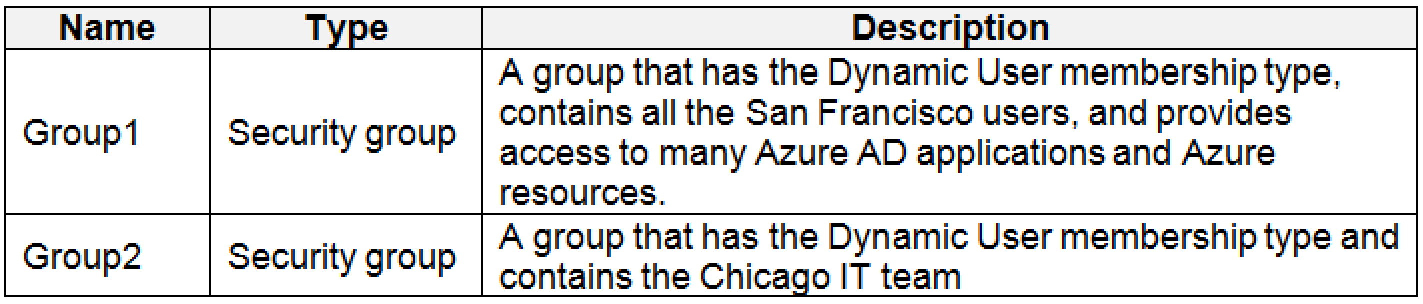
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

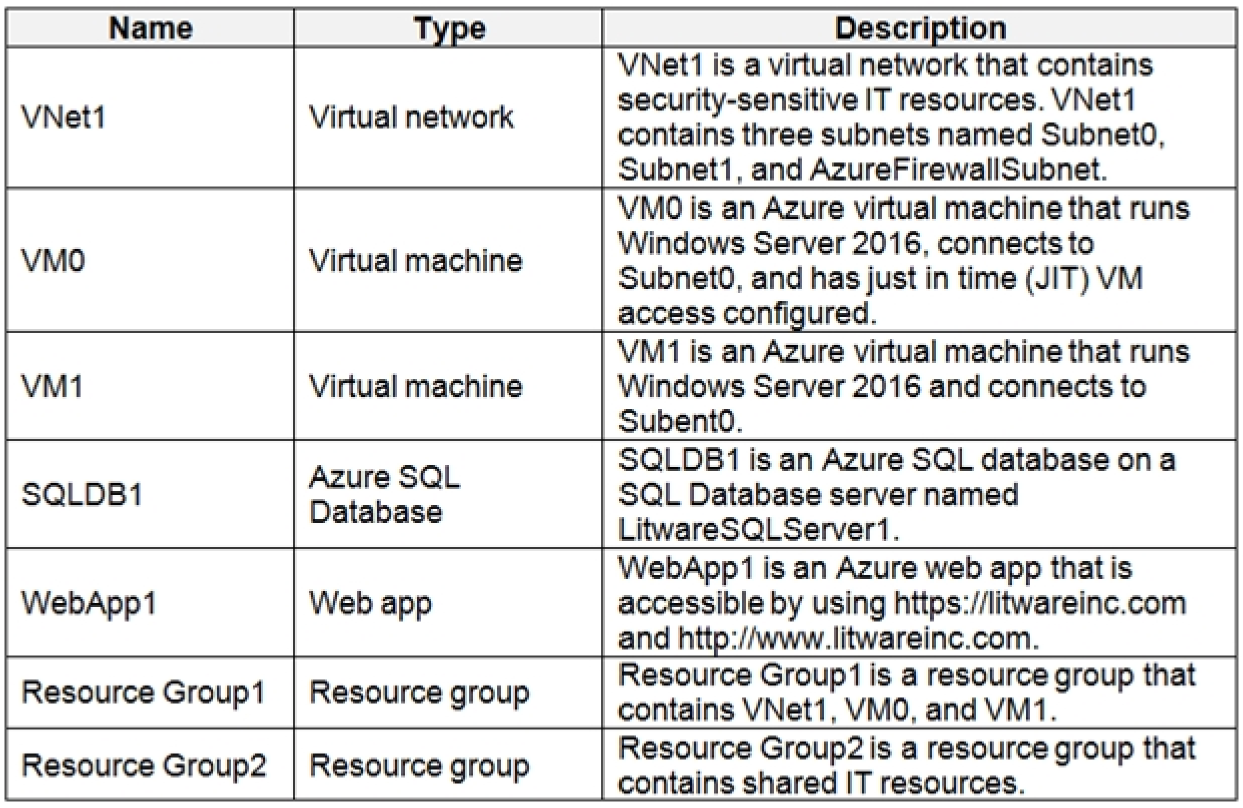
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



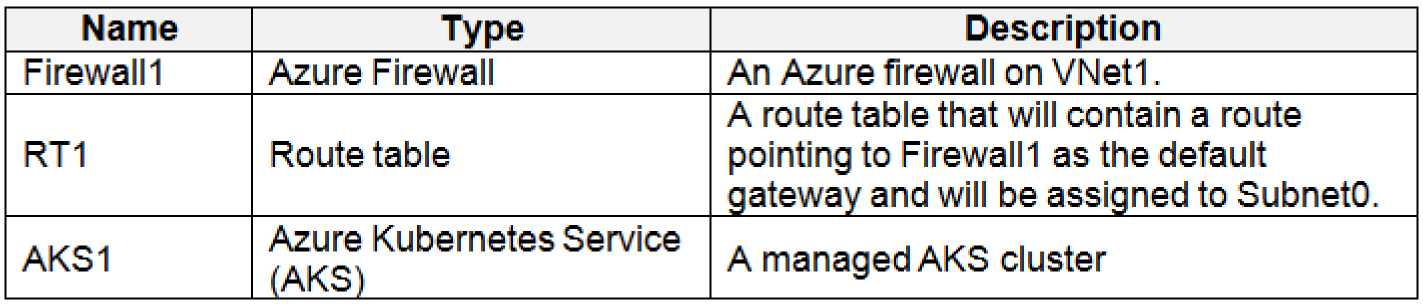
Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Identity and Access Requirements

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

Question

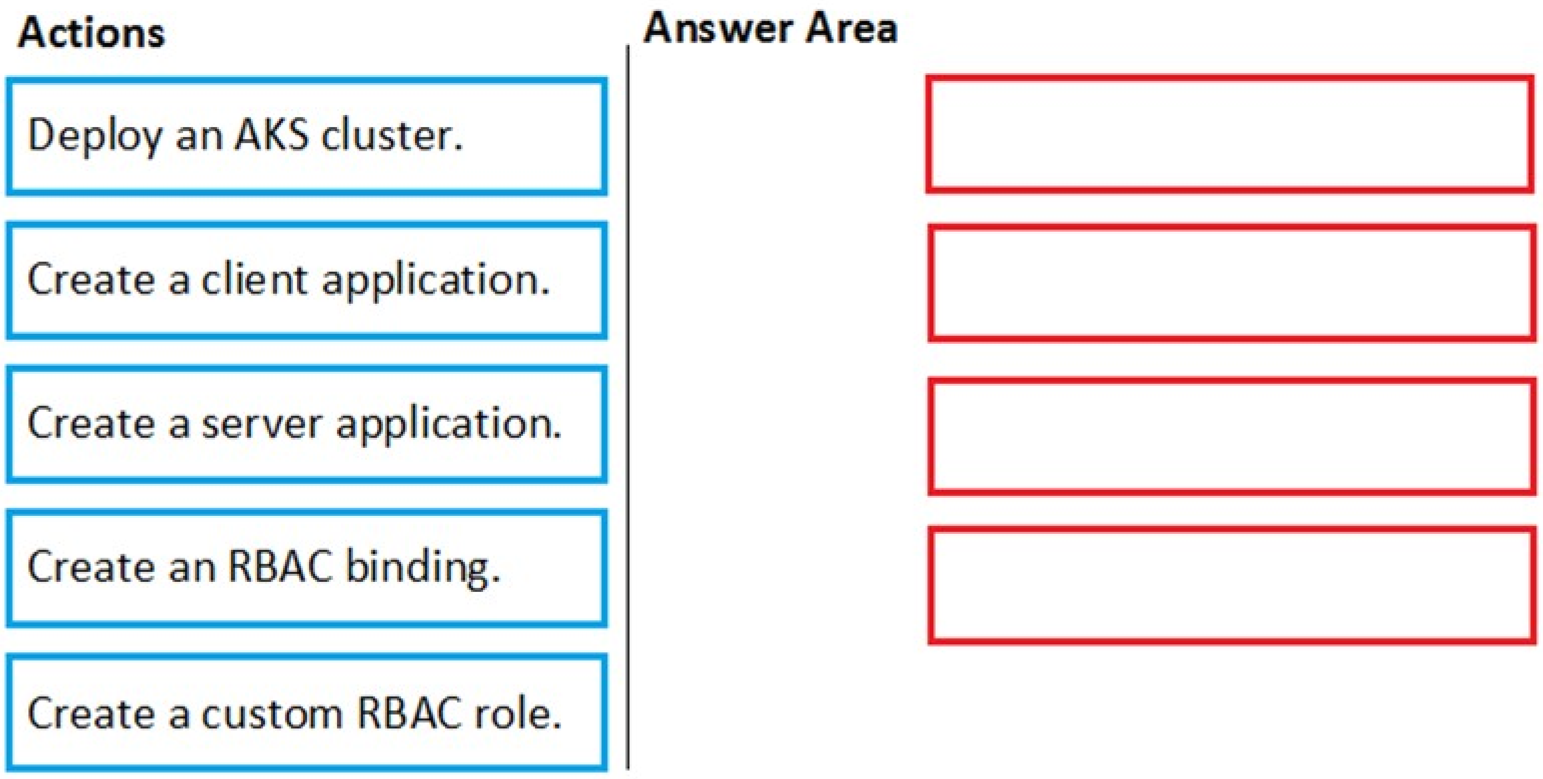
DRAG DROP -

You need to deploy AKS1 to meet the platform protection requirements.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:



Actions

Deploy an AKS cluster.

Create a client application.

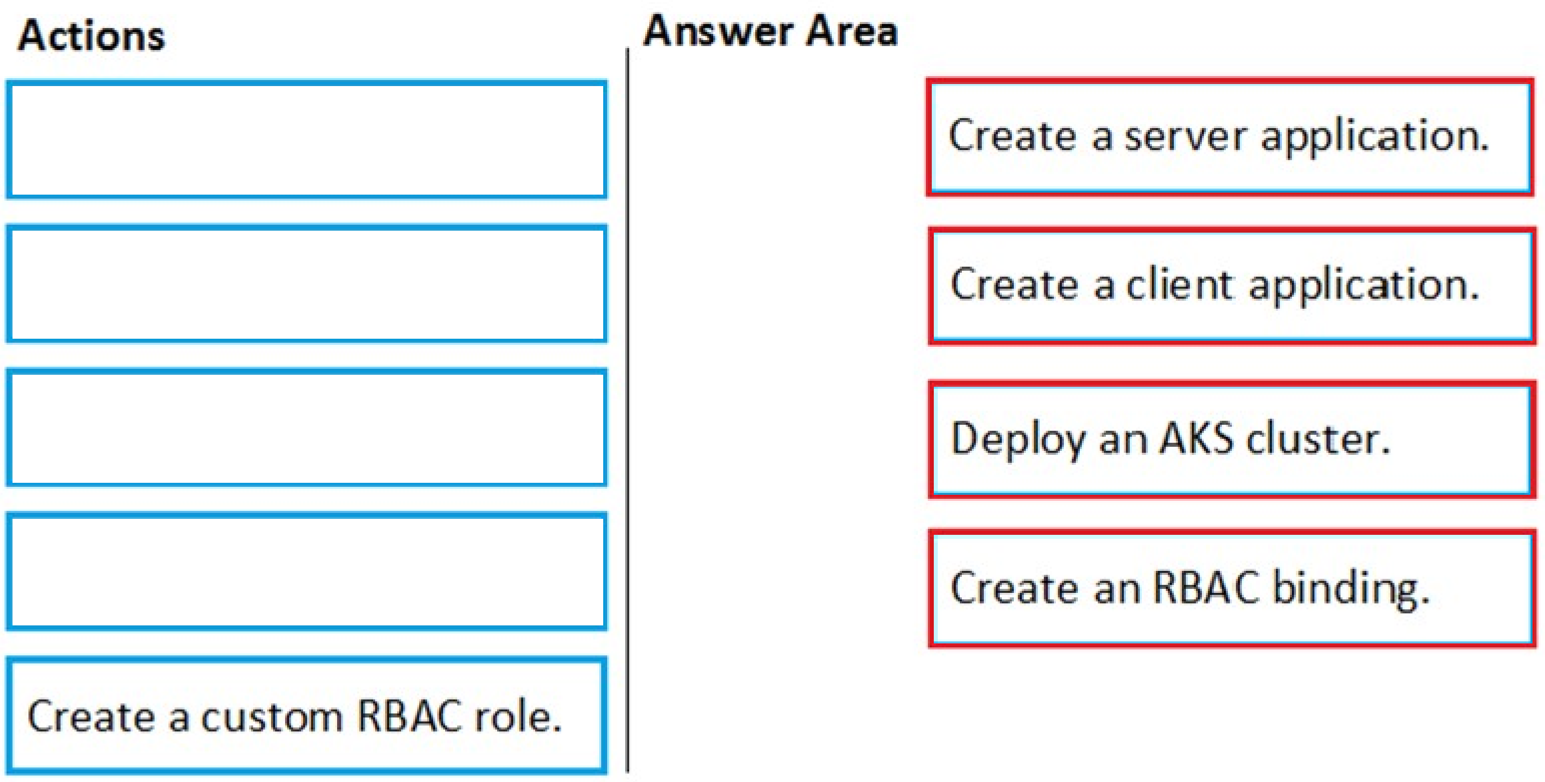
Create a server application.

Create an RBAC binding.

Create a custom RBAC role.

Answer Area

Correct Answer:



Actions

Create a custom RBAC role.

Answer Area

Create a server application.

Create a client application.

Deploy an AKS cluster.

Create an RBAC binding.

Scenario: Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Litewire plans to deploy AKS1, which is a managed AKS (Azure Kubernetes Services) cluster.

Step 1: Create a server application

To provide Azure AD authentication for an AKS cluster, two Azure AD applications are created. The first application is a server component that provides user authentication.

Step 2: Create a client application

The second application is a client component that's used when you're prompted by the CLI for authentication. This client application uses the server application for the actual authentication of the credentials provided by the client.

Step 3: Deploy an AKS cluster.

Use the az group create command to create a resource group for the AKS cluster.

Use the az aks create command to deploy the AKS cluster.

Step 4: Create an RBAC binding.

Before you use an Azure Active Directory account with an AKS cluster, you must create role-binding or cluster role-binding. Roles define the permissions to grant, and bindings apply them to desired users. These assignments can be applied to a given namespace, or across the entire cluster.

Topic 8 - Testlet 4

Question #1 *Topic 8*

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

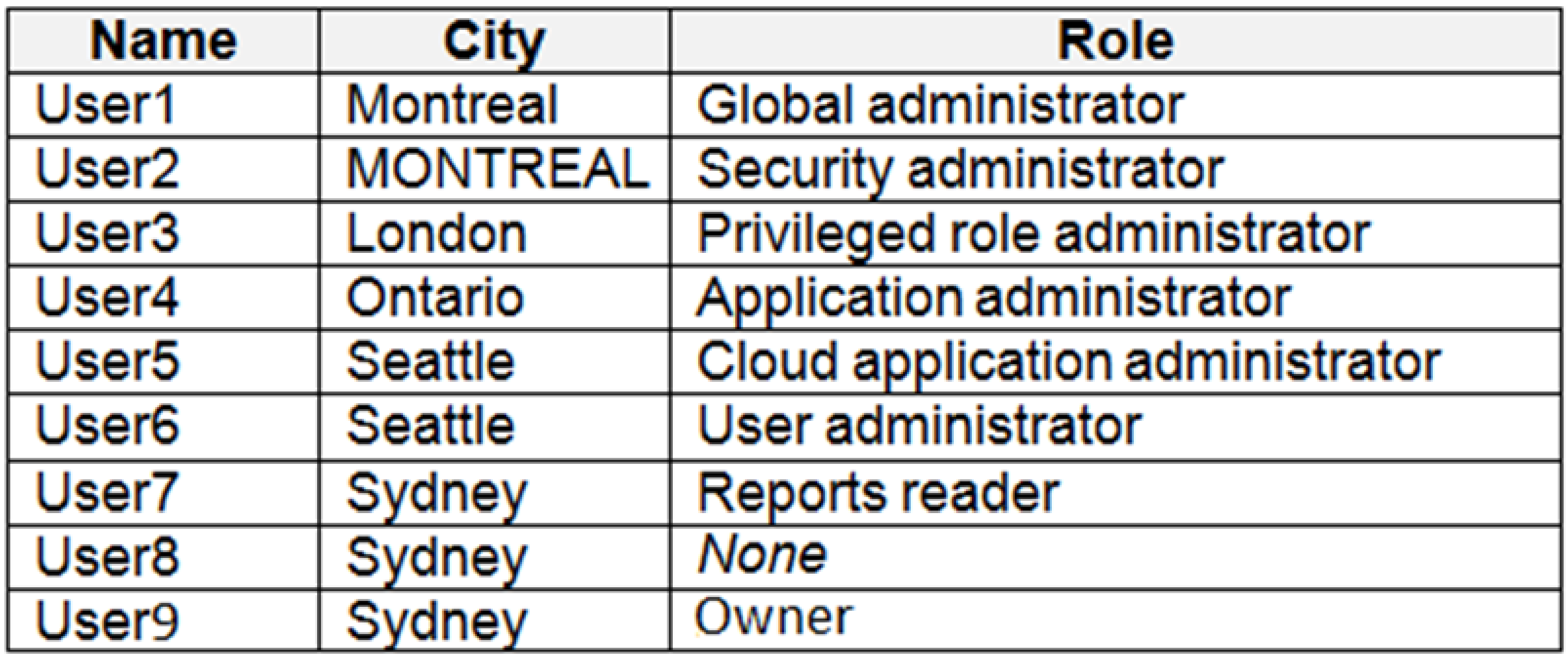
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

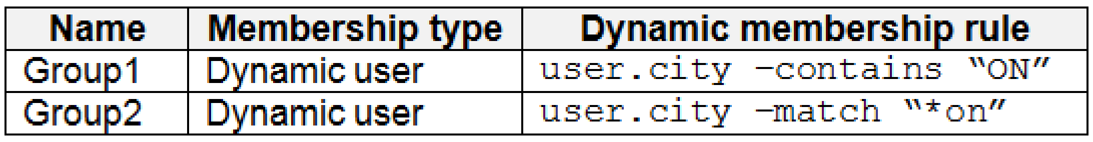
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

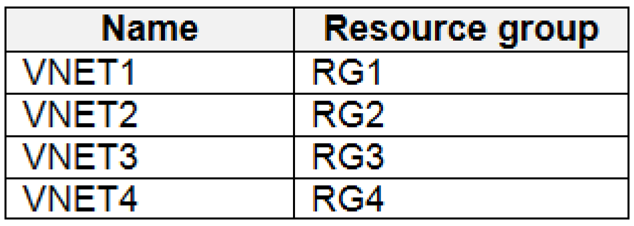


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1 -

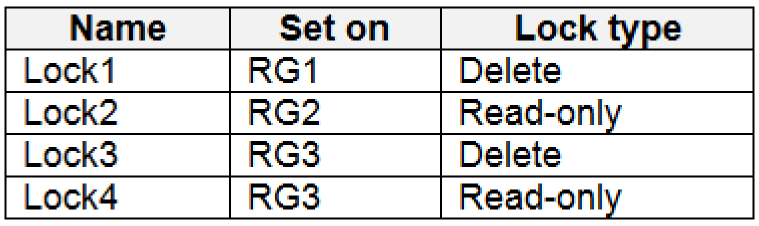
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



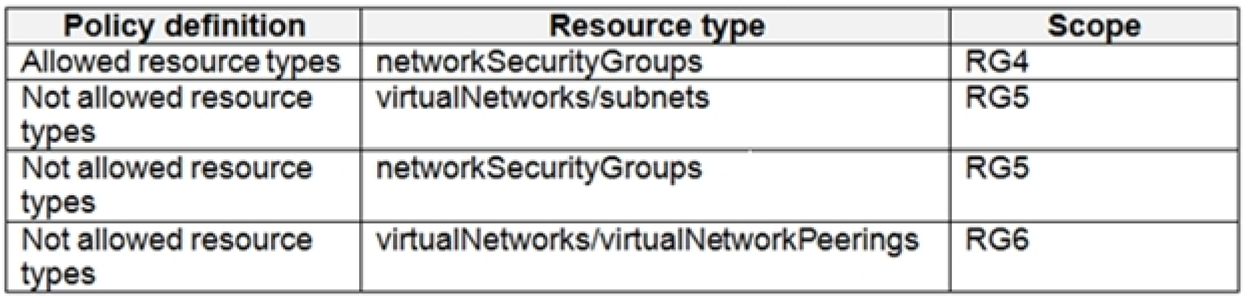
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

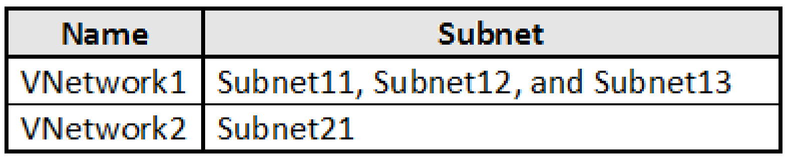
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

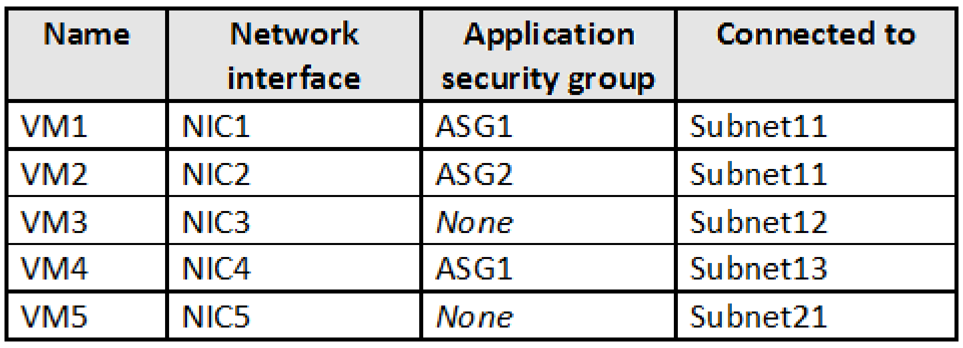
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

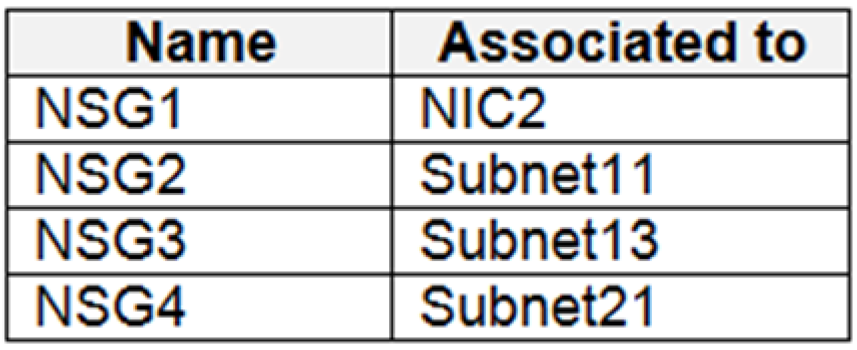
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

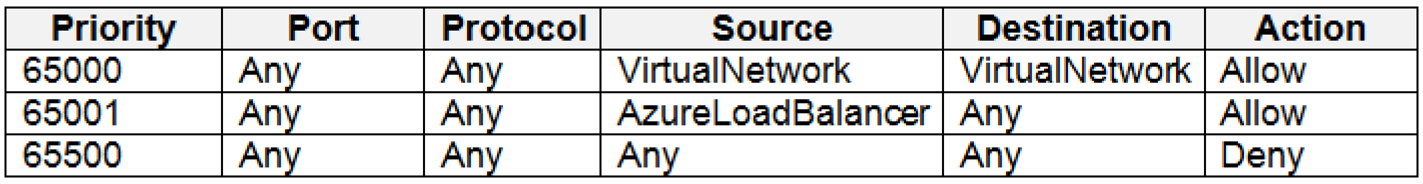
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



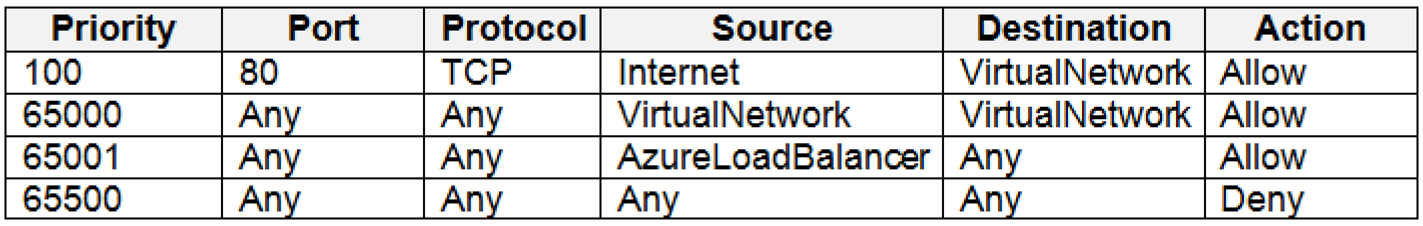
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



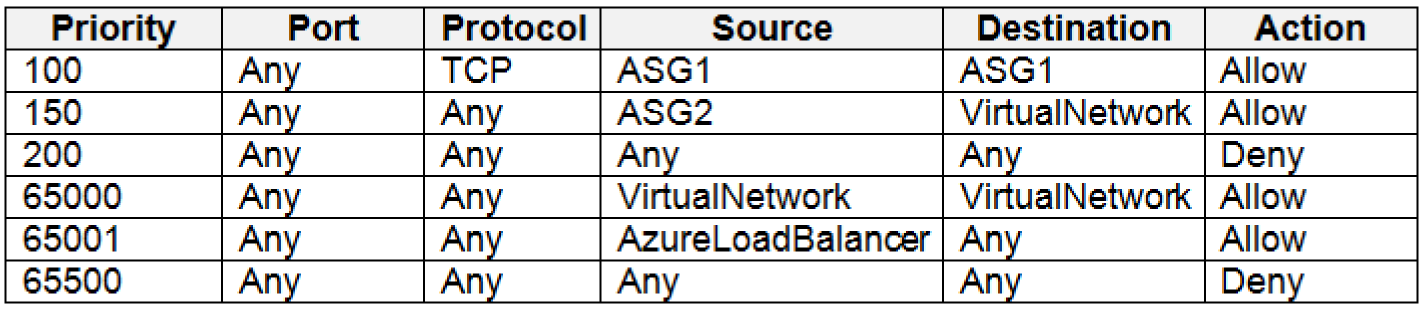
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



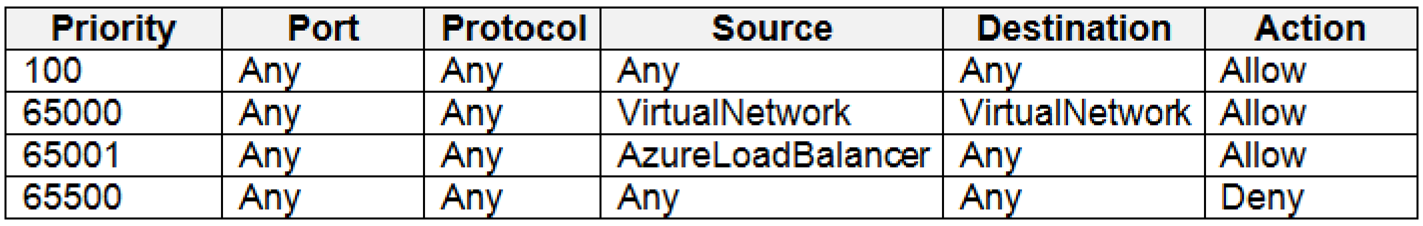
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



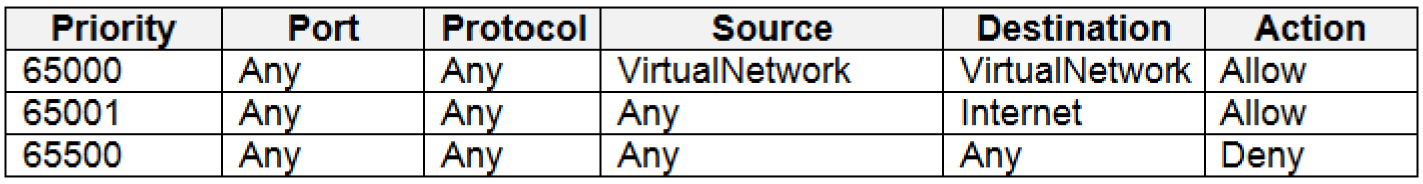
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

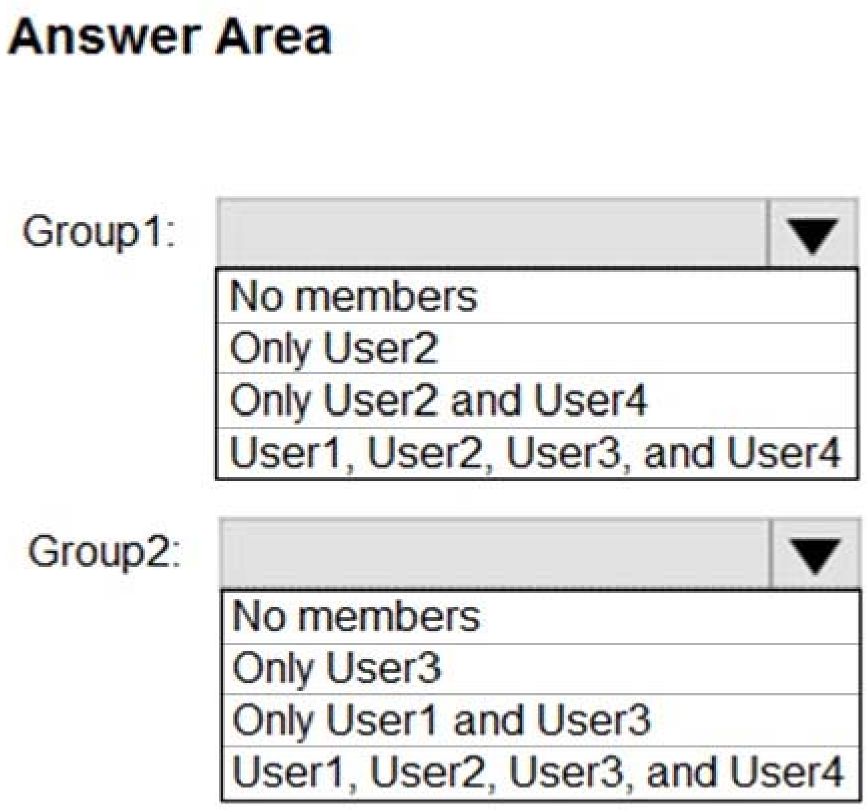
Question

HOTSPOT -

What is the membership of Group1 and Group2? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

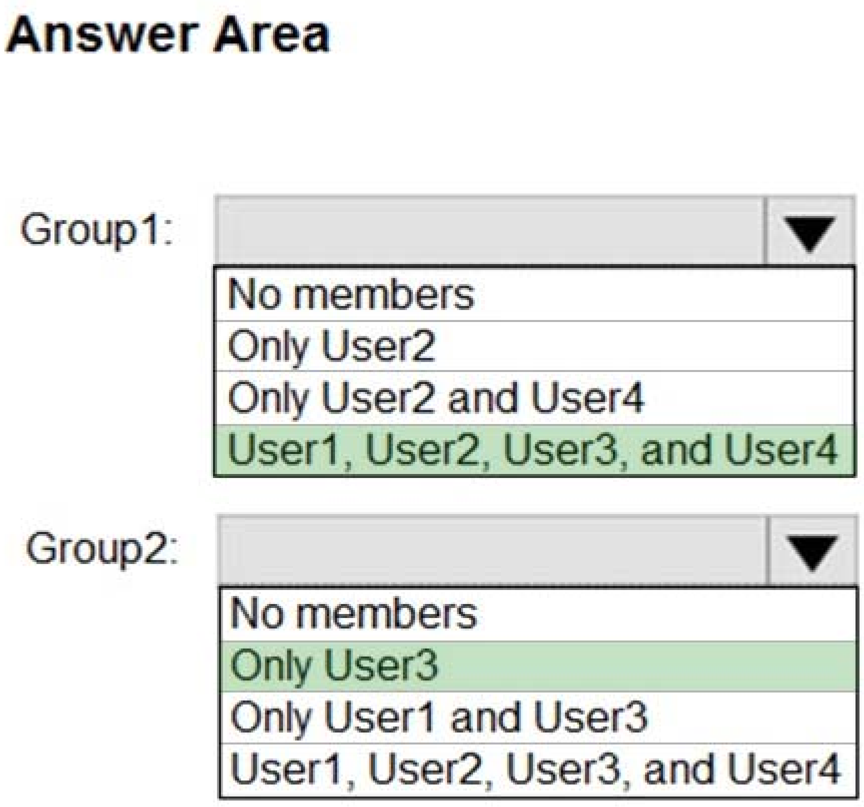


Answer Area

Group1: ▼
- No members
- Only User2
- Only User2 and User4
- User1, User2, User3, and User4

Group2: ▼
- No members
- Only User3
- Only User1 and User3
- User1, User2, User3, and User4

Correct Answer:



Answer Area

Group1: ▼
- No members
- Only User2
- Only User2 and User4
- [✓ User1, User2, User3, and User4]

Group2: ▼
- No members
- [✓ Only User3]
- Only User1 and User3
- User1, User2, User3, and User4

Box 1: User1, User2, User3, User4

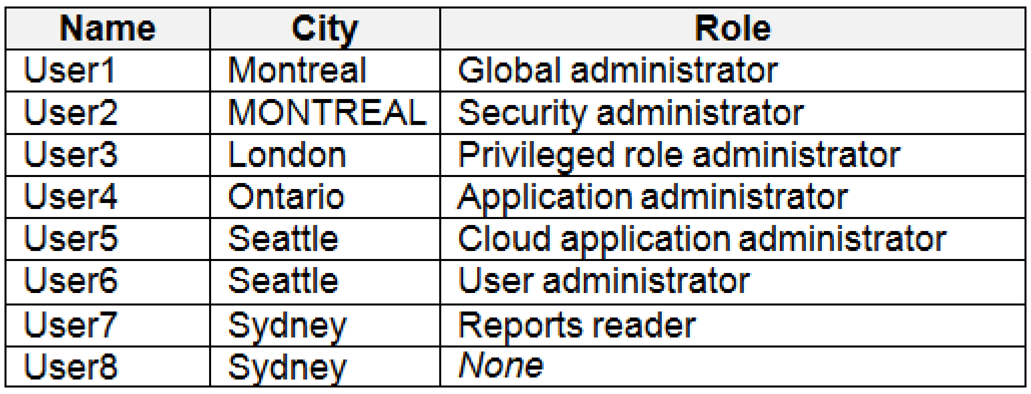
Contains "ON" is true for Montreal (User1), MONTREAL (User2), London (User 3), and Ontario (User4) as string and regex operations are not case sensitive.

Box 2: Only User3 -

Match "*on" is only true for London (User3) as "˜London' is the only word that ends with "˜on'.

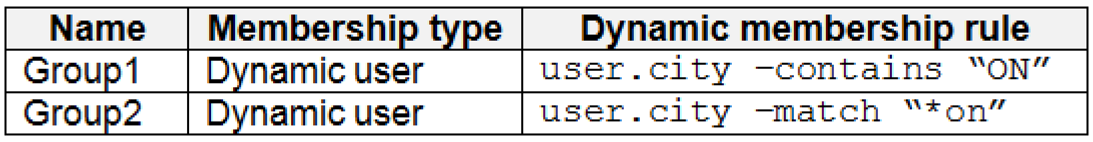
Scenario:

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*

Contoso.com contains the security groups shown in the following table.



Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city -contains “ON”`
Group2	Dynamic user	`user.city -match “*on”`

References:

https://docs.microsoft.com/en-us/azure/active-directory/users-groups-roles/groups-dynamic-membership

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

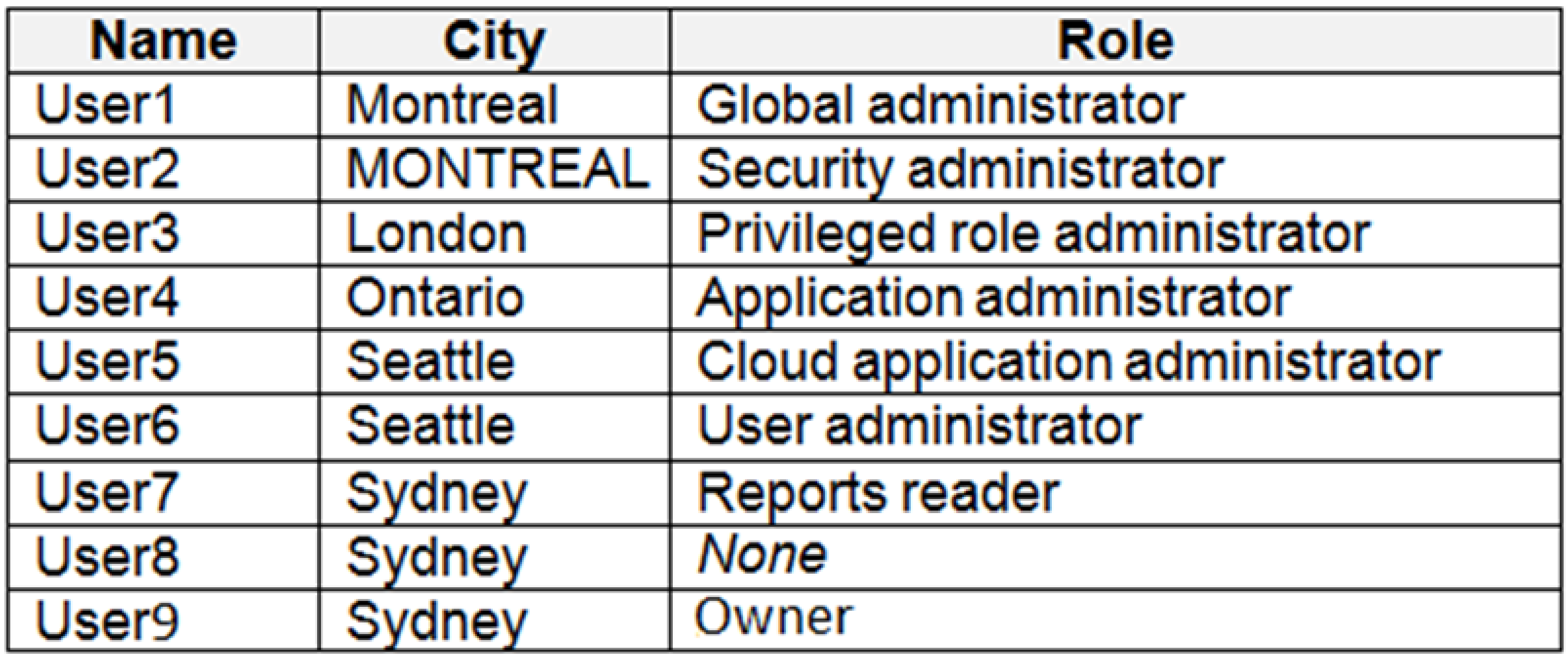
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

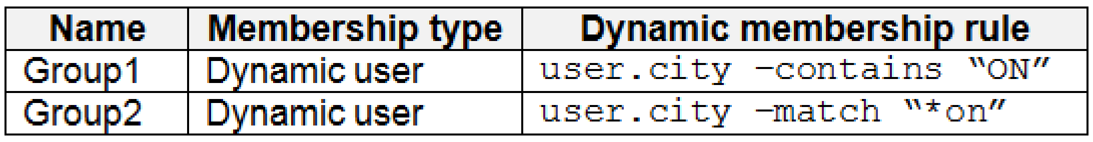
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

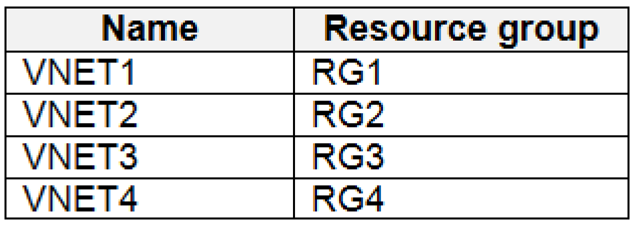


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1 -

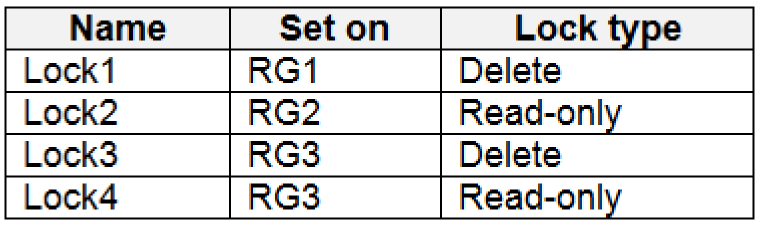
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



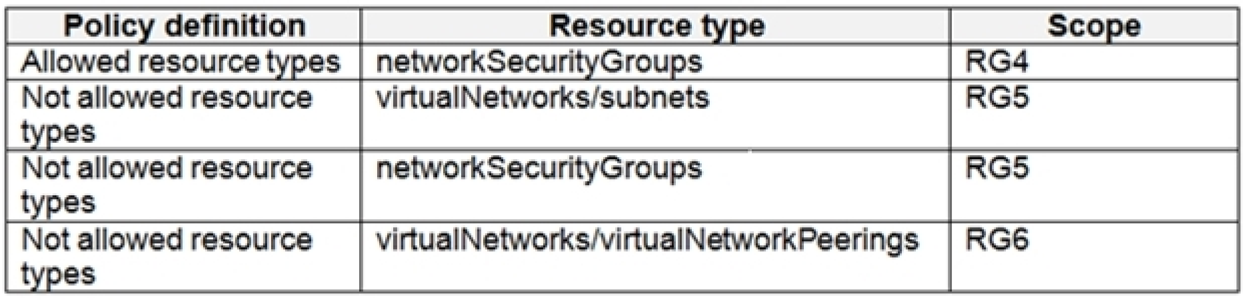
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

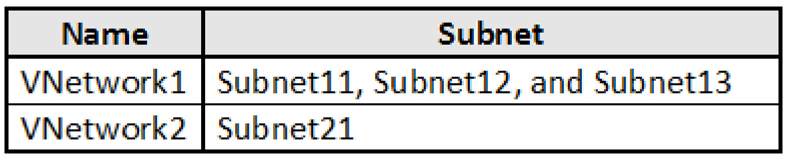
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

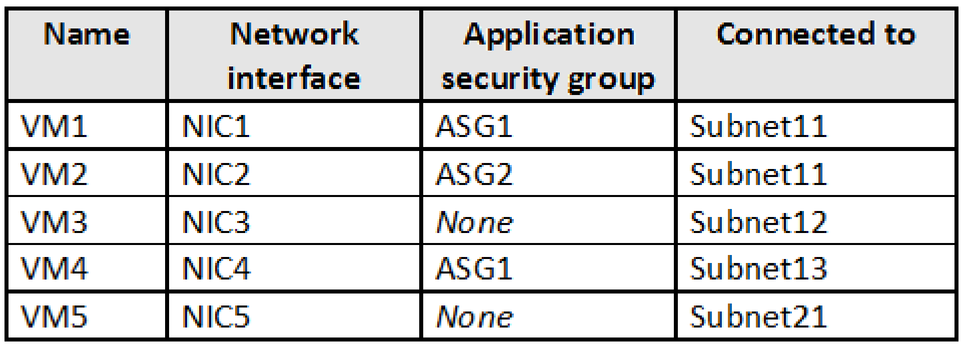
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

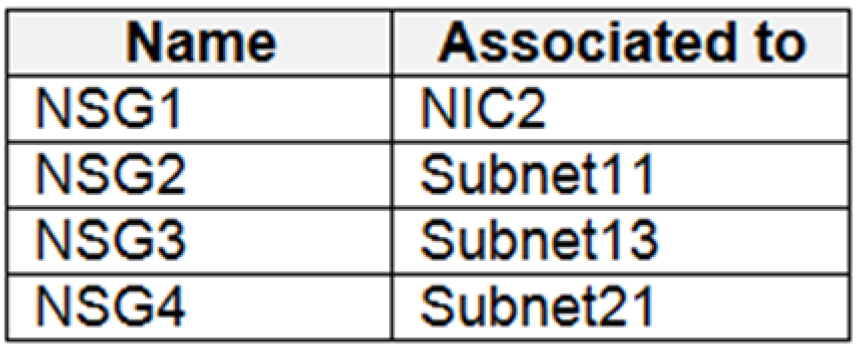
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

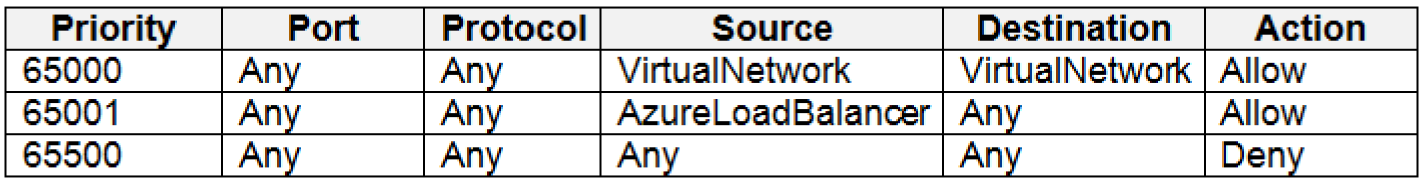
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



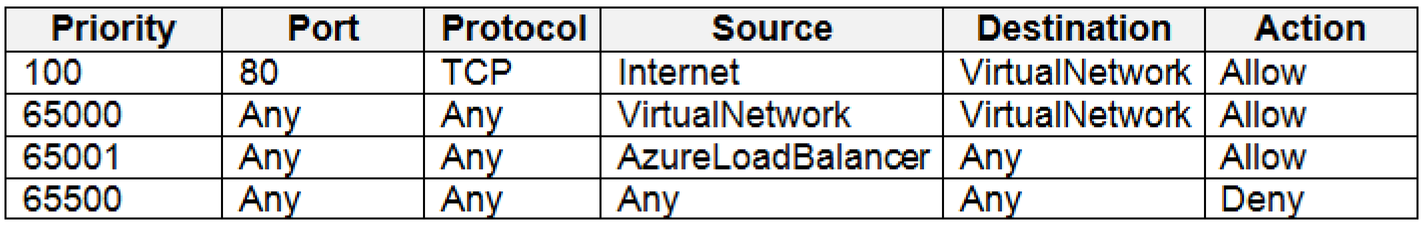
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



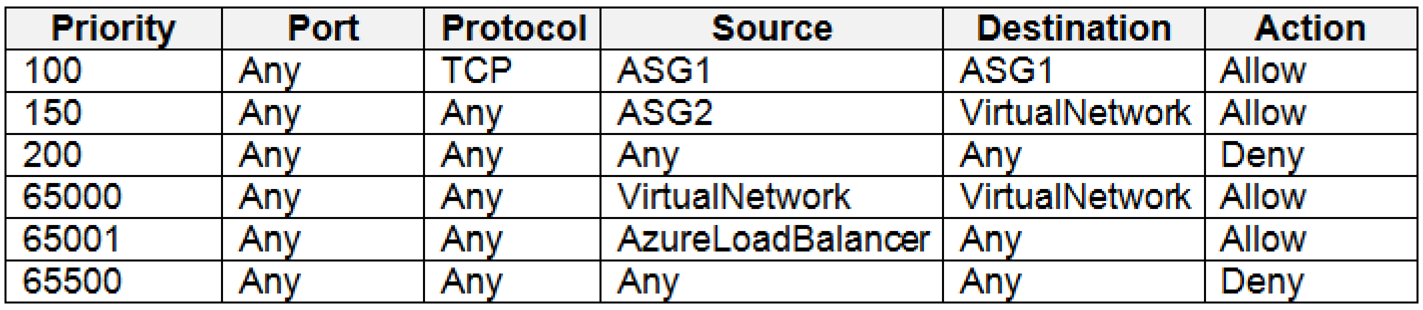
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



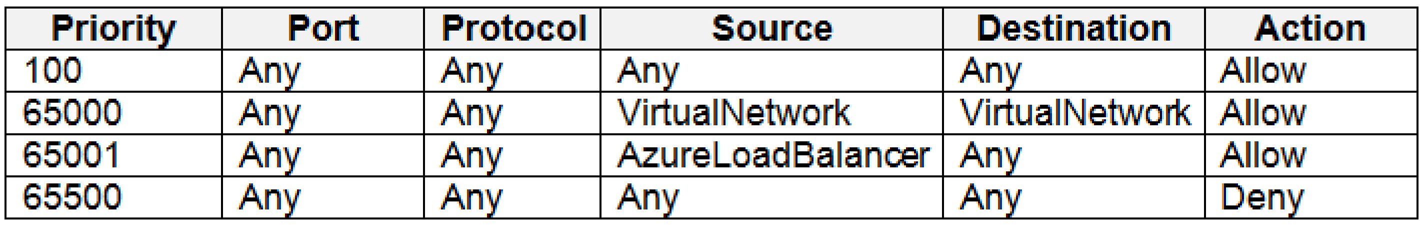
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



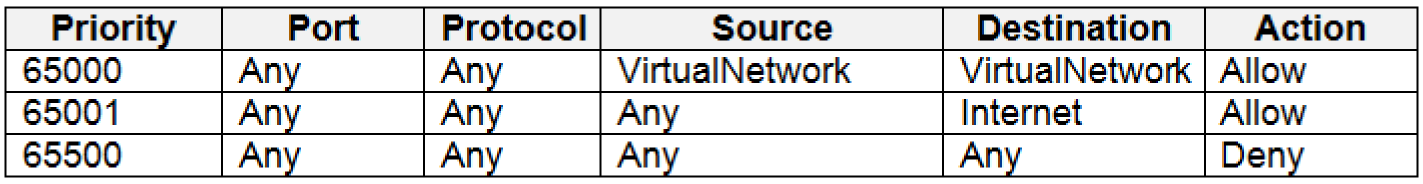
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

Question

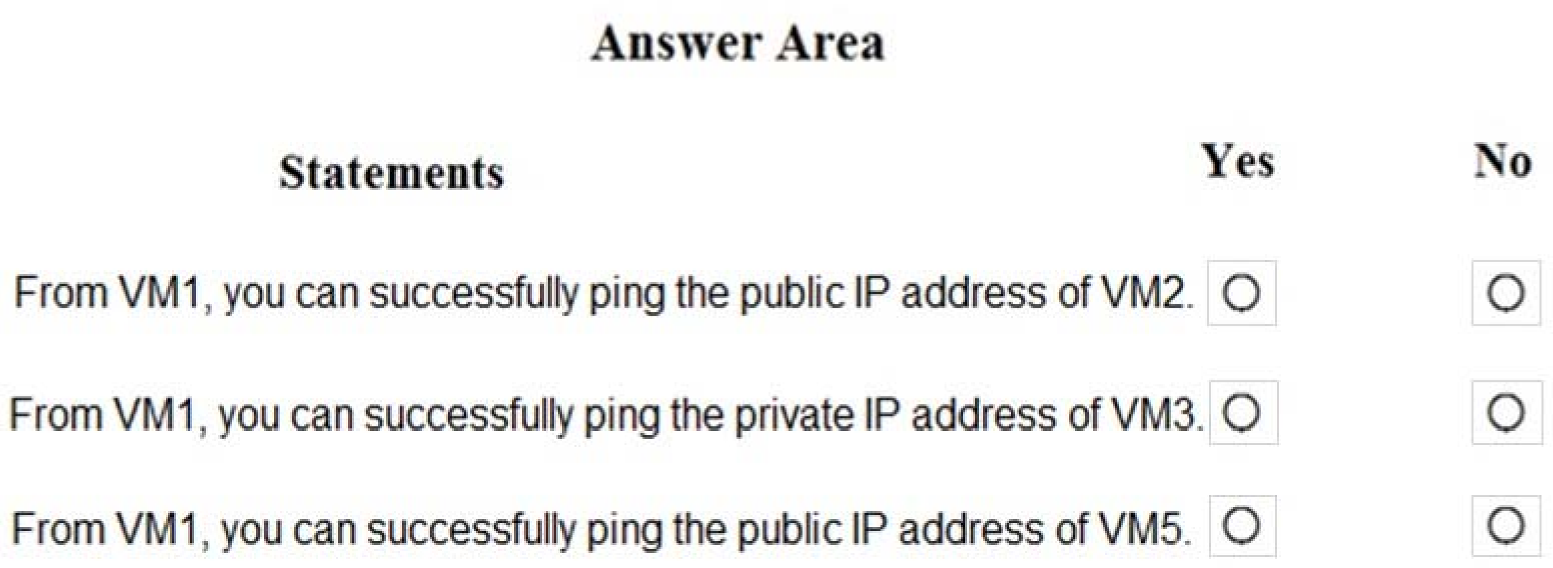
HOTSPOT -

You are evaluating the security of the network communication between the virtual machines in Sub2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

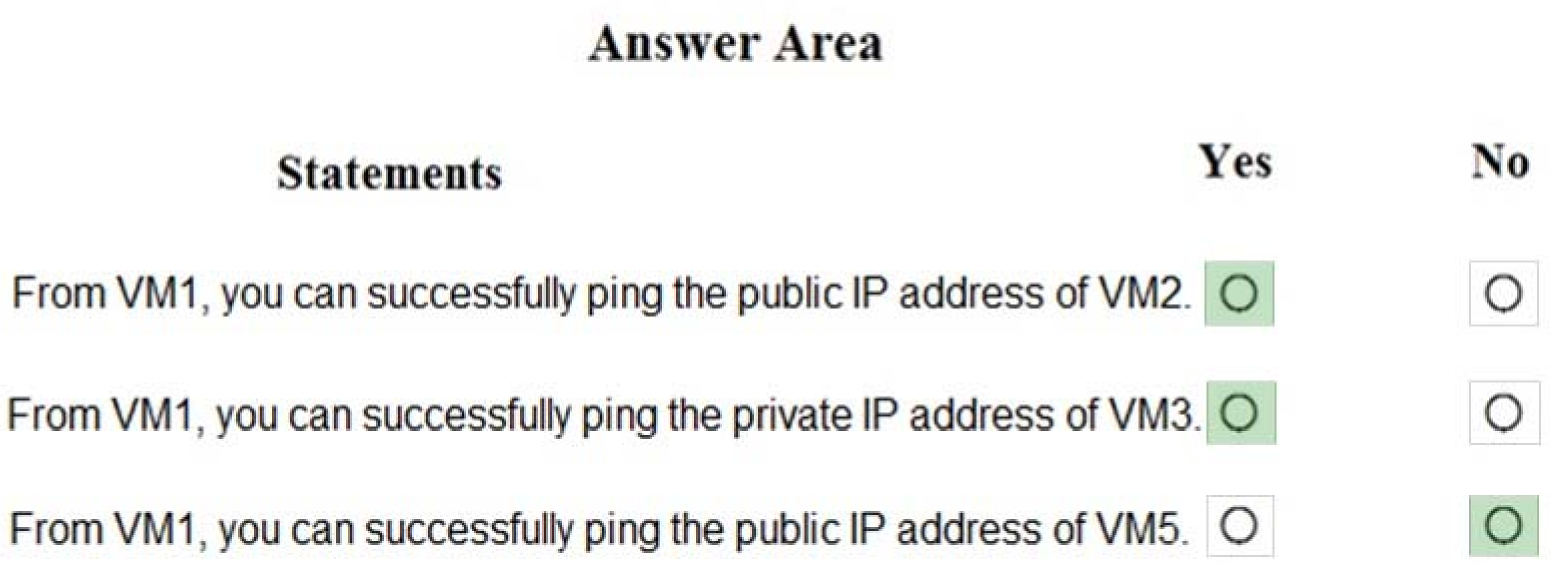
Hot Area:



Answer Area

Statements	Yes	No
From VM1, you can successfully ping the public IP address of VM2.	○	○
From VM1, you can successfully ping the private IP address of VM3.	○	○
From VM1, you can successfully ping the public IP address of VM5.	○	○

Correct Answer:

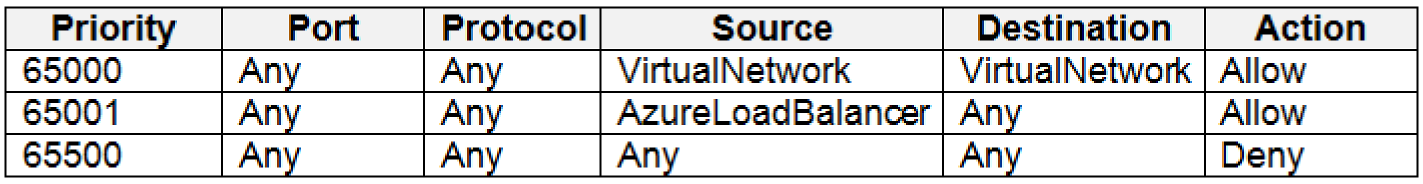


Answer Area

Statements	Yes	No
From VM1, you can successfully ping the public IP address of VM2.	[✓ ○]	○
From VM1, you can successfully ping the private IP address of VM3.	[✓ ○]	○
From VM1, you can successfully ping the public IP address of VM5.	○	[✓ ○]

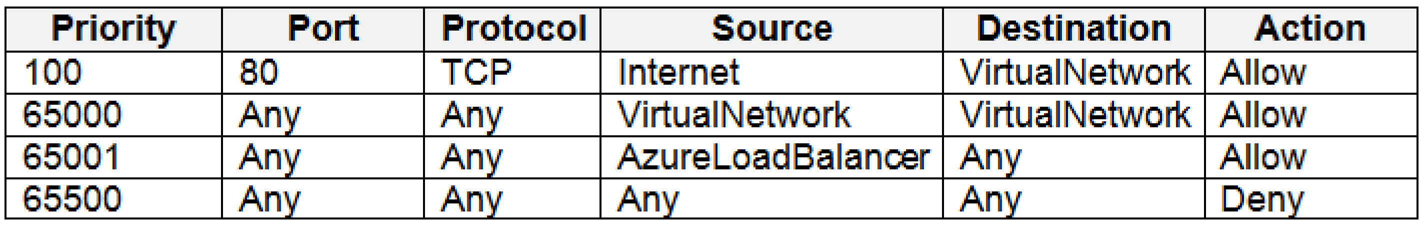
Box 1: Yes -

NSG1 has the inbound security rules shown in the following table.



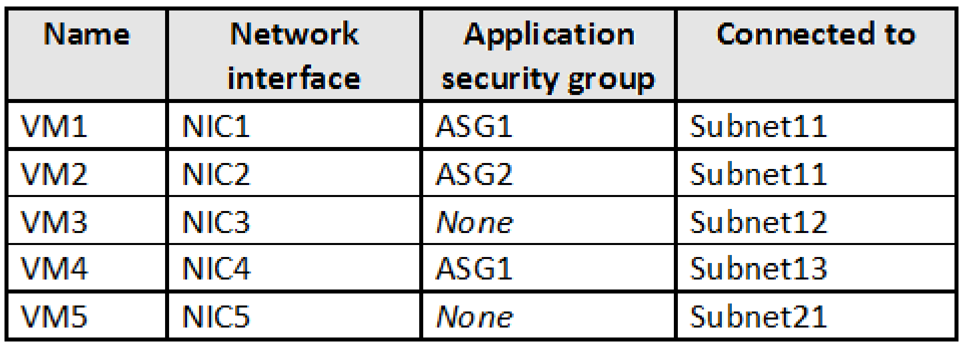
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.

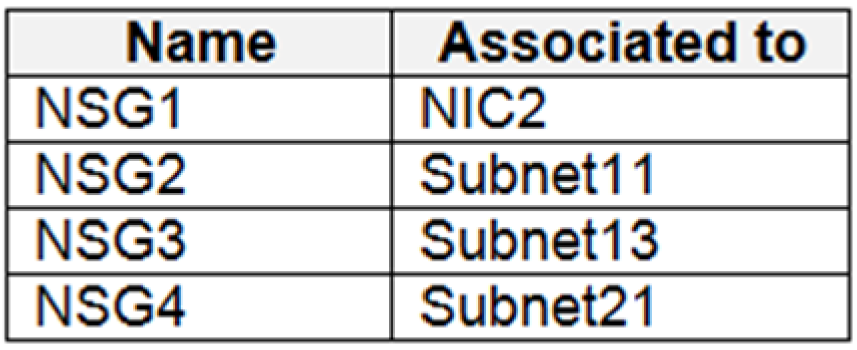


Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

Box 2: Yes. VM3 is on Subnet12. There is no NSG attached to Subnet12 so the traffic will be allowed by default.



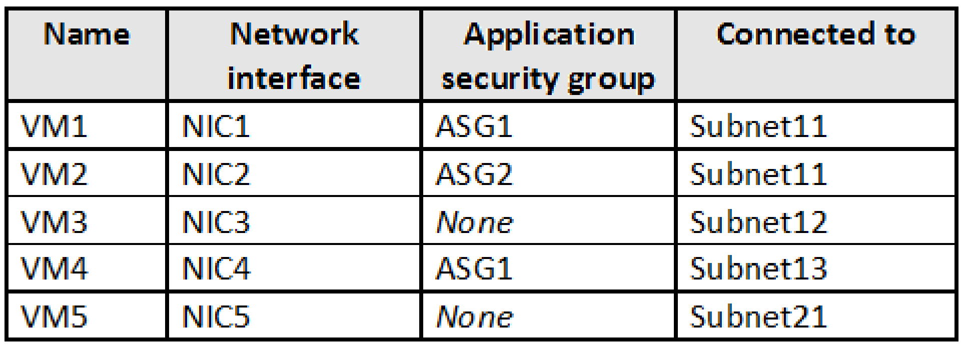
Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21



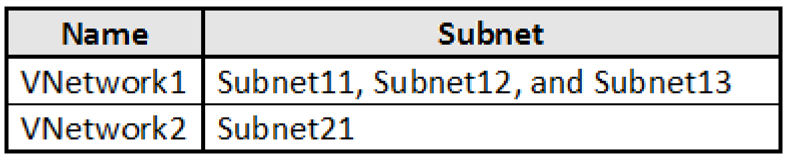
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

Box 3: No (because VM5 is in a separate VNet).

Note: Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

Question #3 *Topic 8*

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

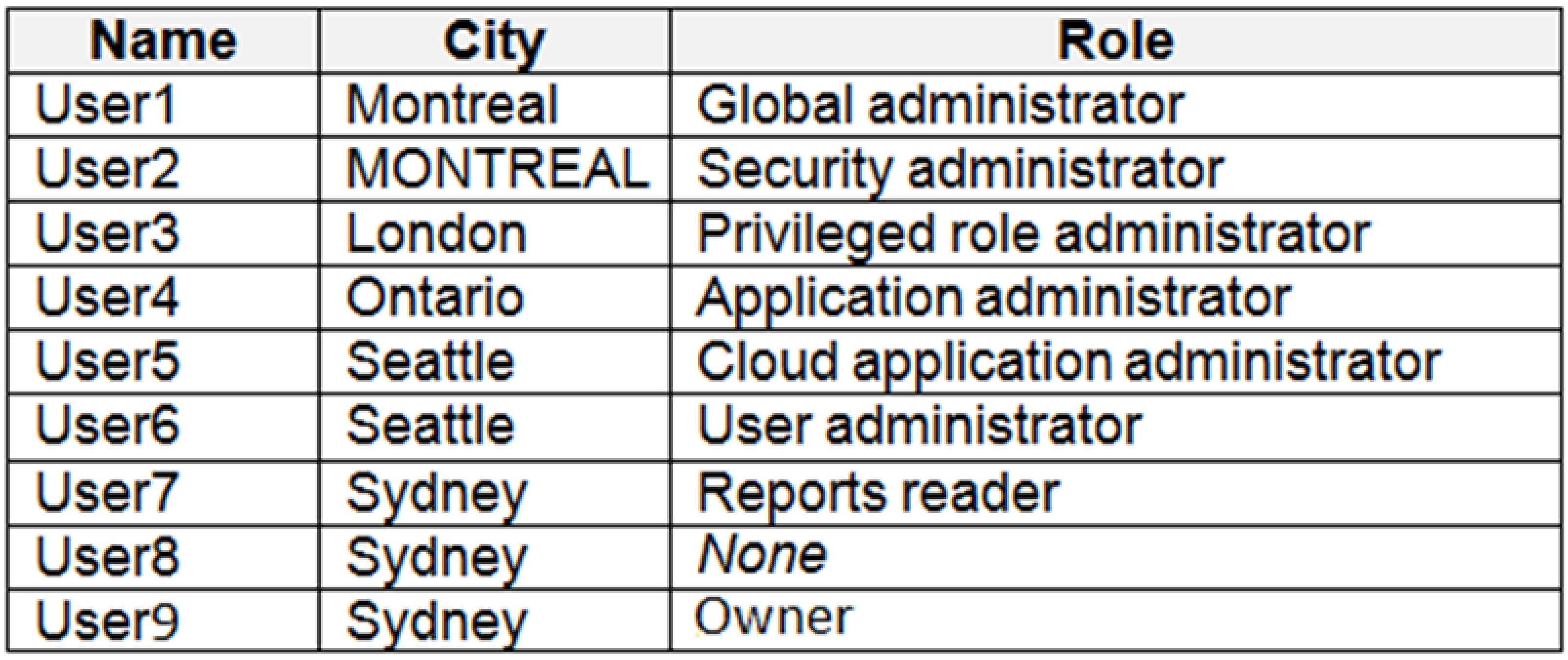
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

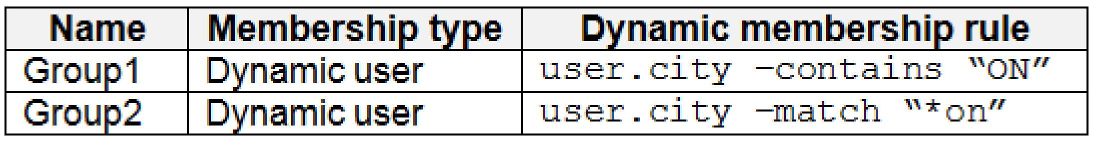
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

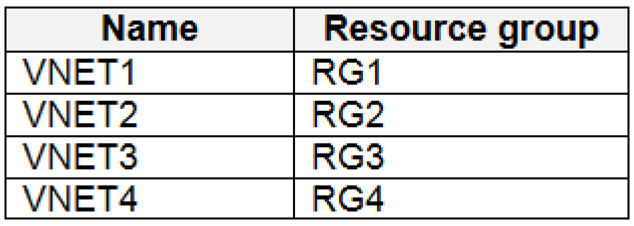


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1 -

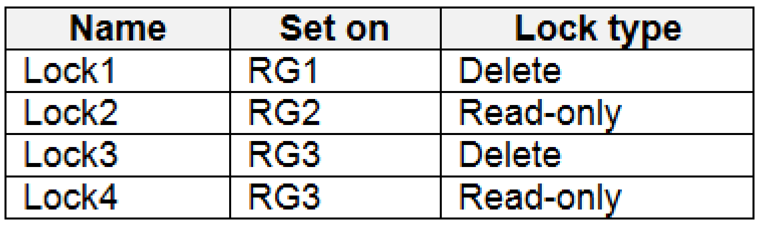
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



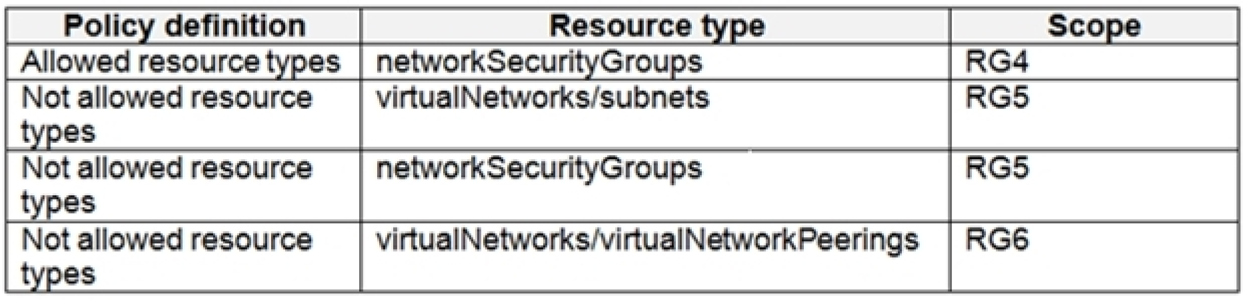
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

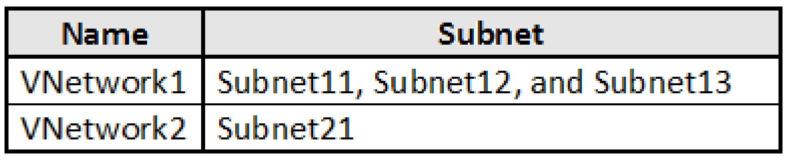
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

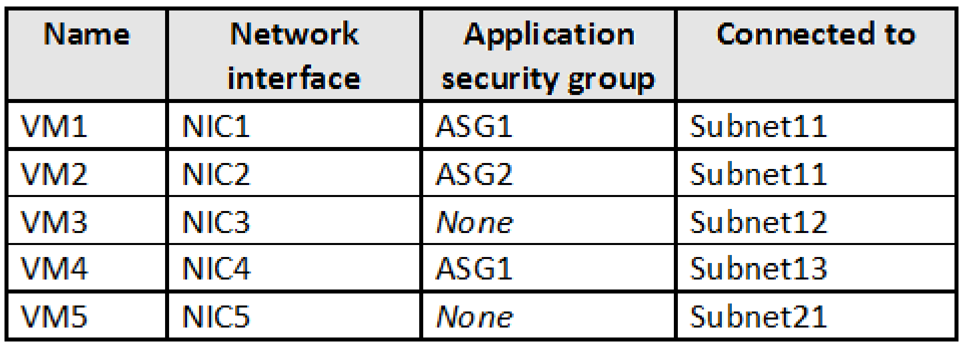
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

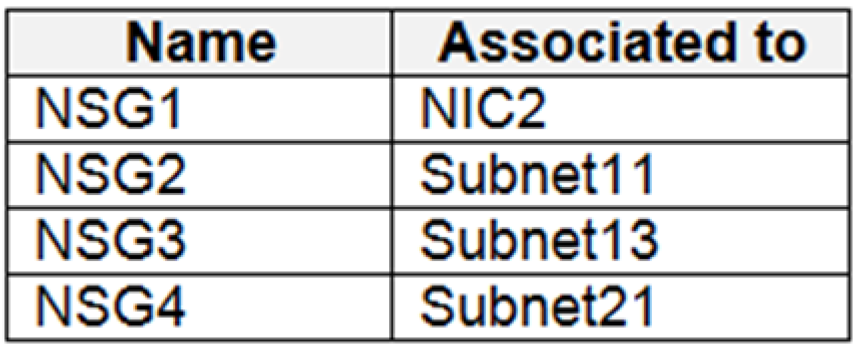
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

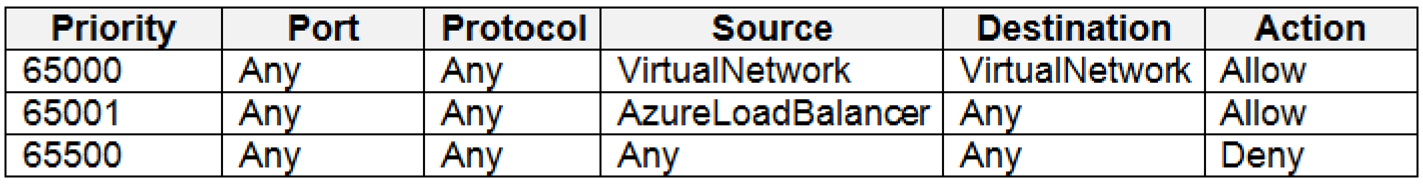
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



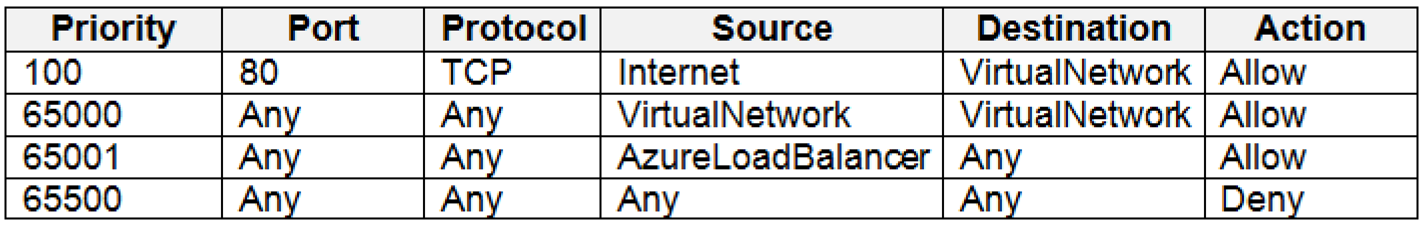
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



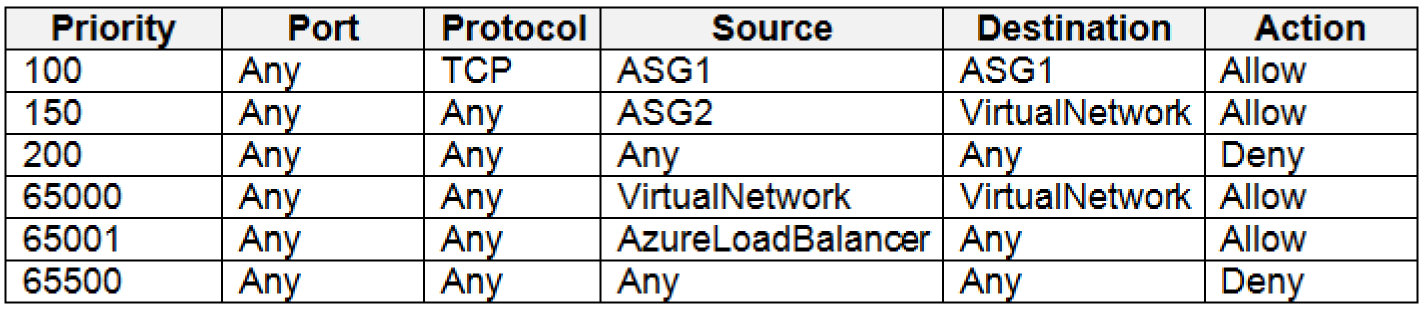
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



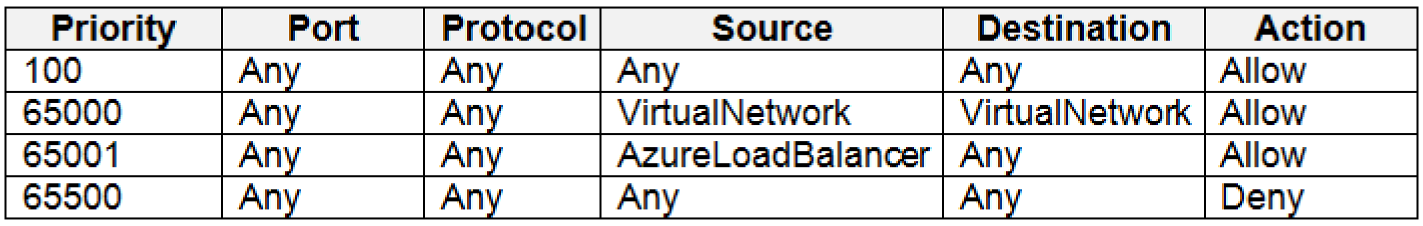
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



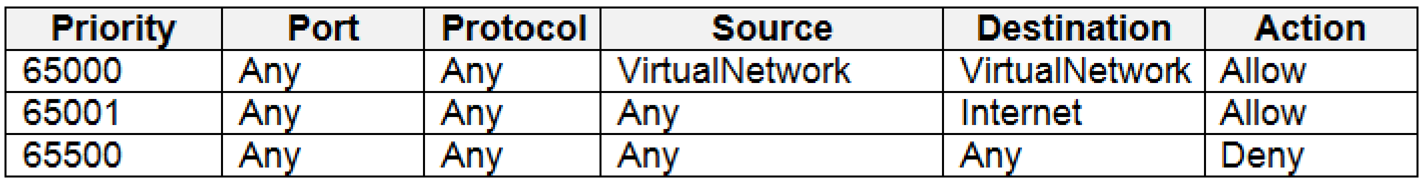
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

Question

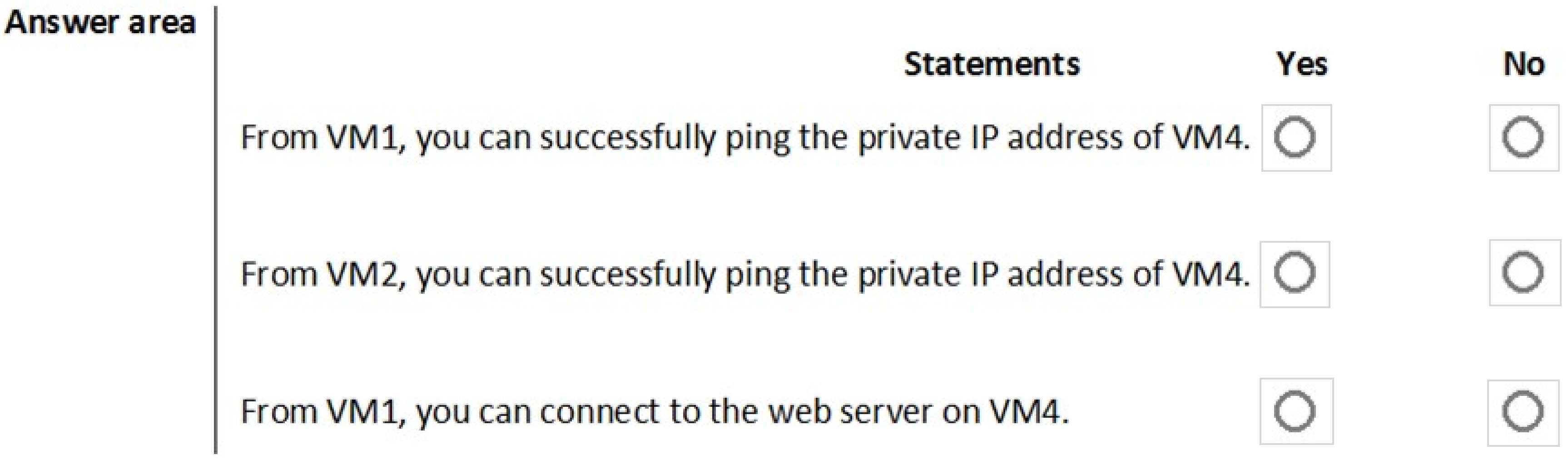
HOTSPOT -

You are evaluating the effect of the application security groups on the network communication between the virtual machines in Sub2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

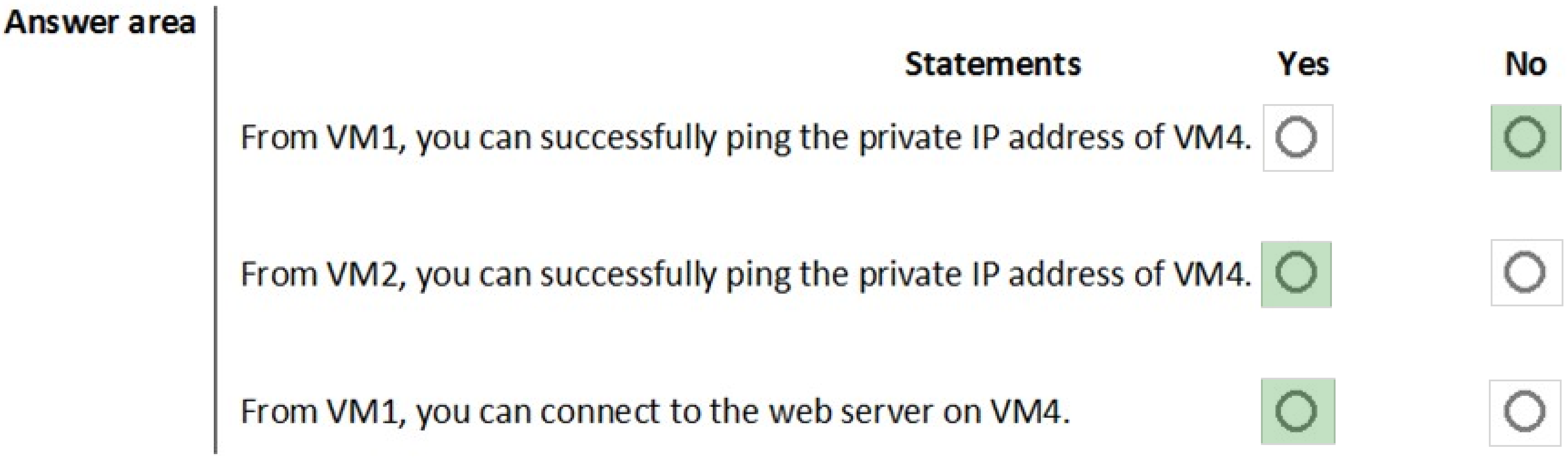
Hot Area:



Answer area

Statements	Yes	No
From VM1, you can successfully ping the private IP address of VM4.	○	○
From VM2, you can successfully ping the private IP address of VM4.	○	○
From VM1, you can connect to the web server on VM4.	○	○

Correct Answer:



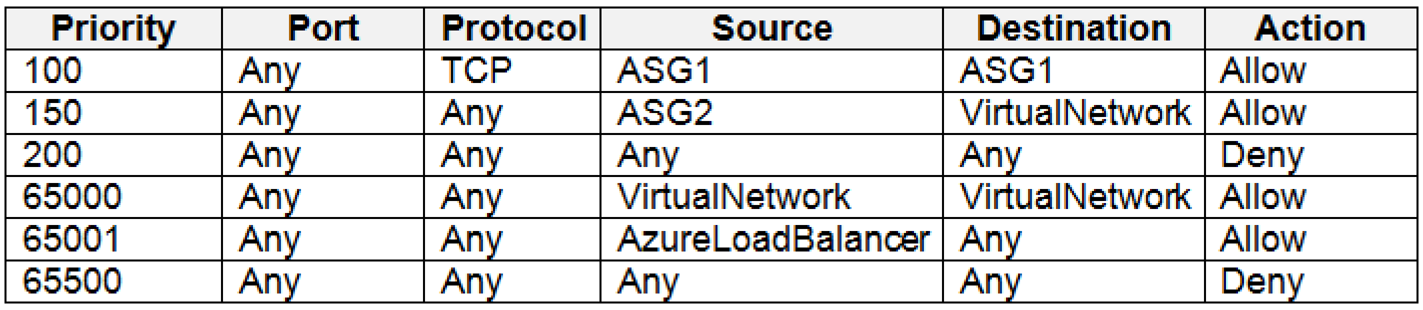
Answer area

Statements	Yes	No
From VM1, you can successfully ping the private IP address of VM4.	○	[✓ ○]
From VM2, you can successfully ping the private IP address of VM4.	[✓ ○]	○
From VM1, you can connect to the web server on VM4.	[✓ ○]	○

Box 1: No. VM4 is in Subnet13 which has NSG3 attached to it.

VM1 is in ASG1. NSG3 would only allow ICMP pings from ASG2 but not ASG1. Only TCP traffic is allowed from ASG1.

NSG3 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

Box 2: Yes.

VM2 is in ASG2. Any protocol is allowed from ASG2 so ICMP ping would be allowed.

Box3. VM1 is in ASG1. TCP traffic is allowed from ASG1 so VM1 could connect to the web server as connections to the web server would be on ports TCP 80 or

TCP 443.

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

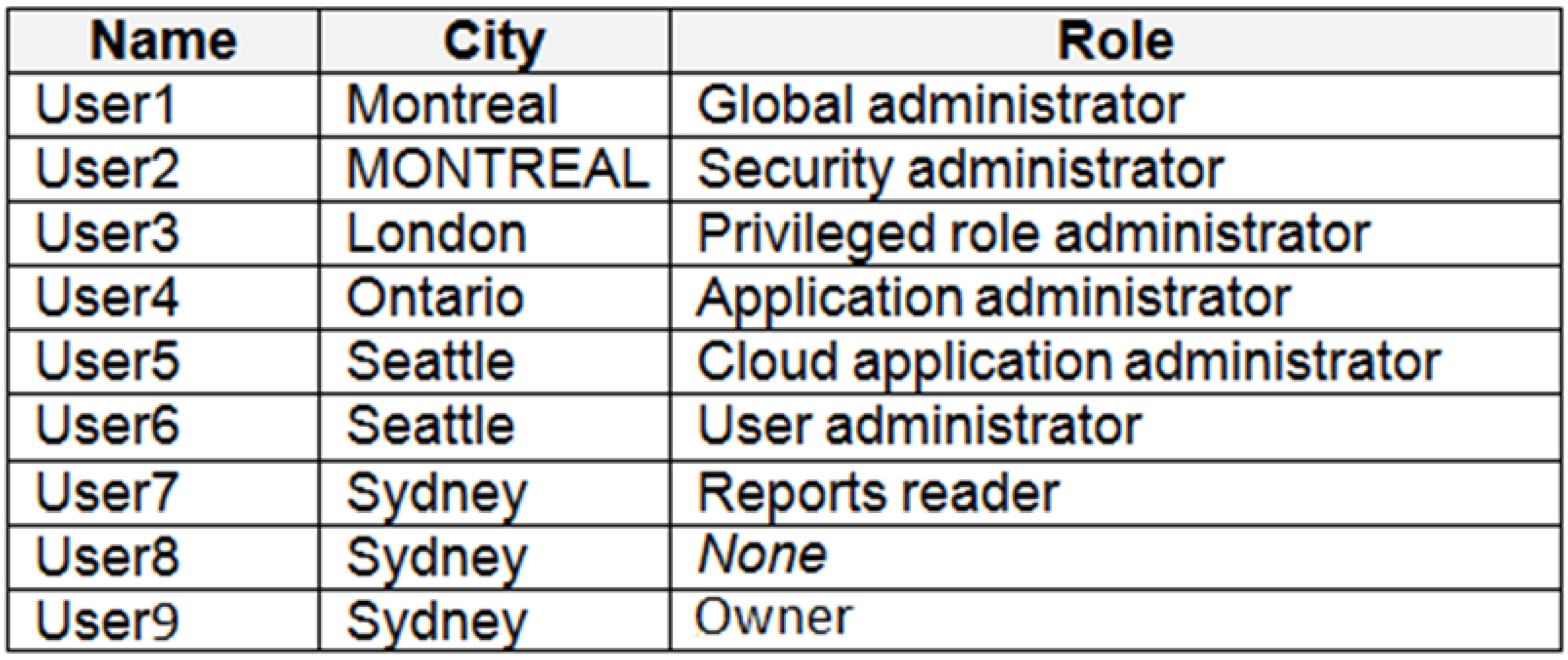
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

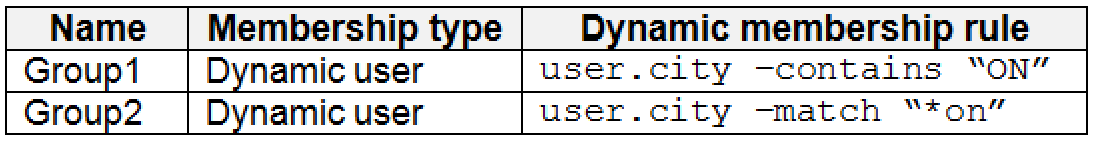
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

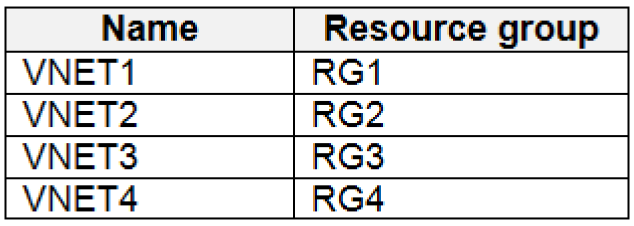


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains "ON"`
Group2	Dynamic user	`user.city –match "*on"`

Sub1 -

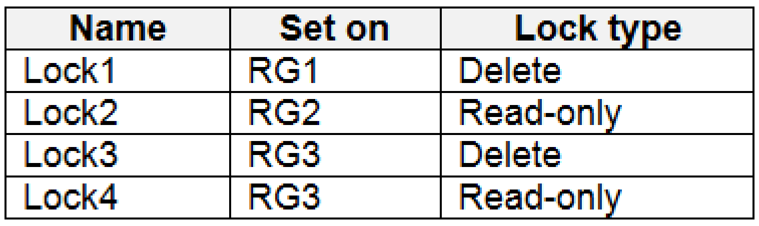
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



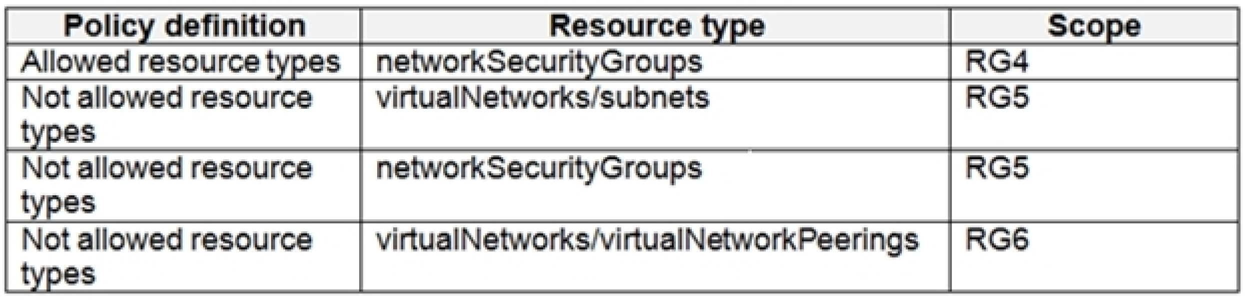
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

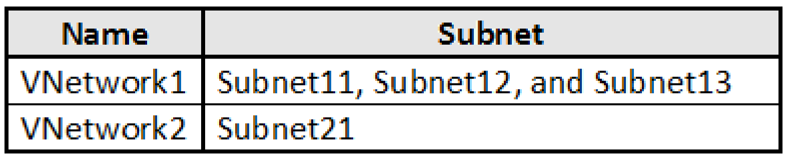
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

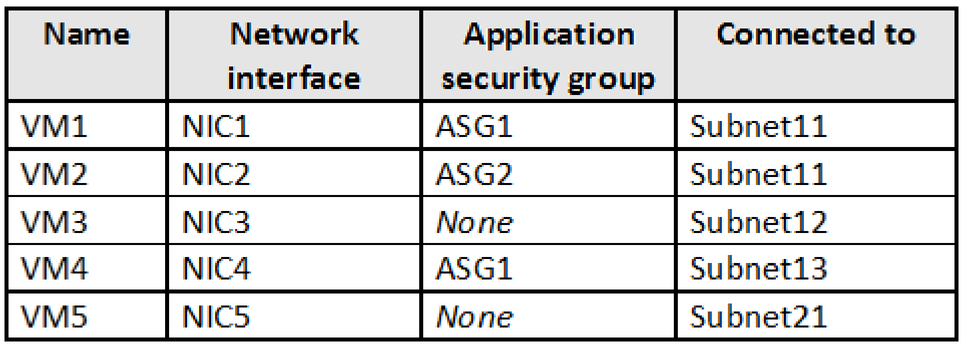
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

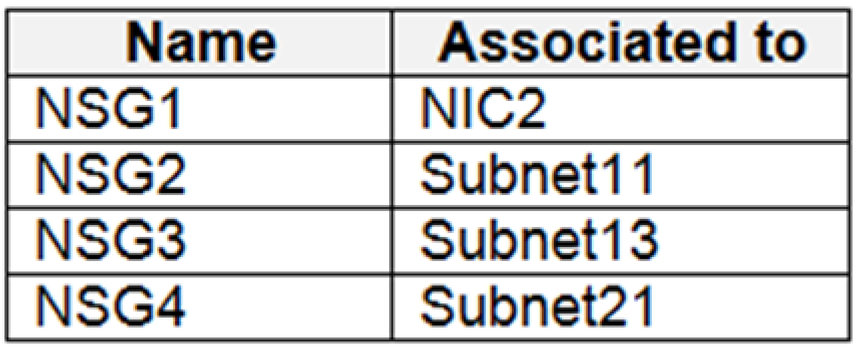
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

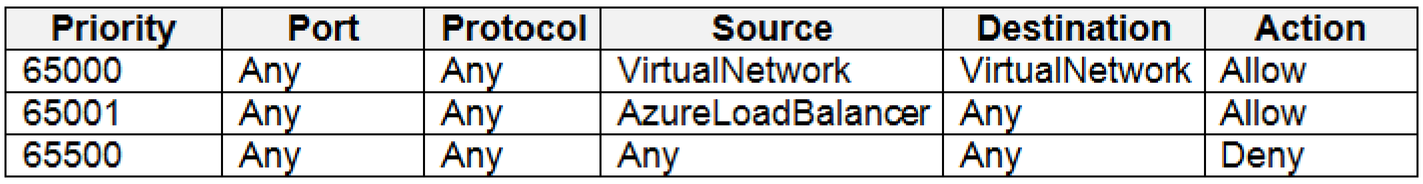
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



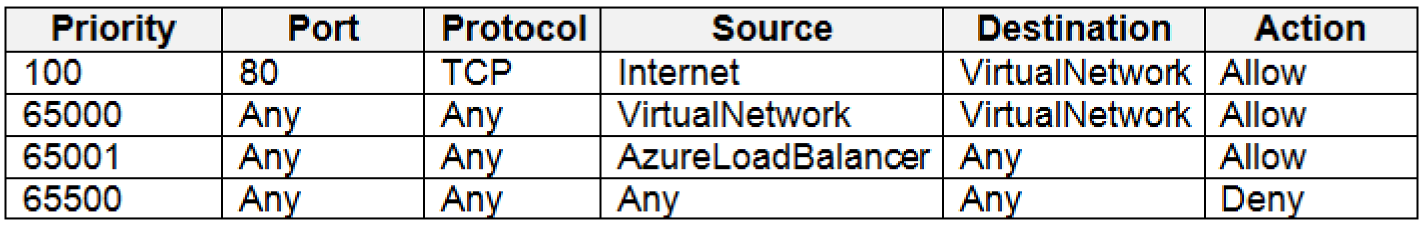
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



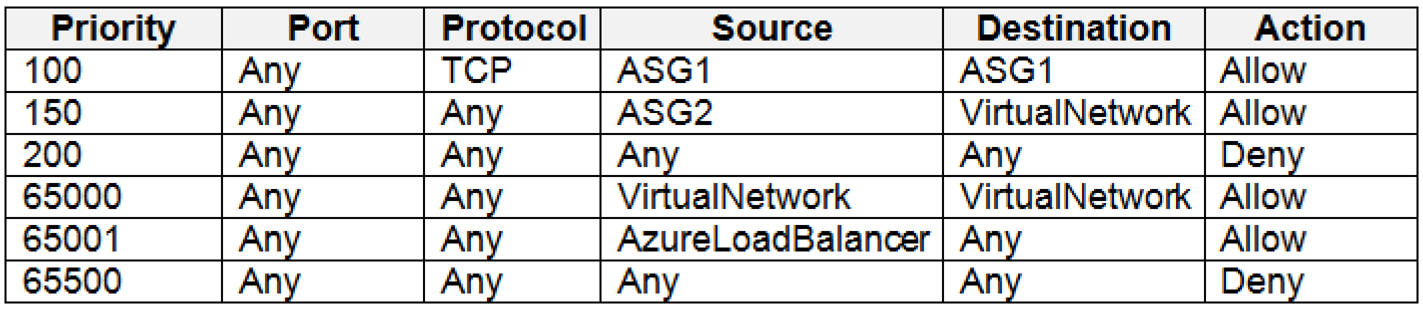
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



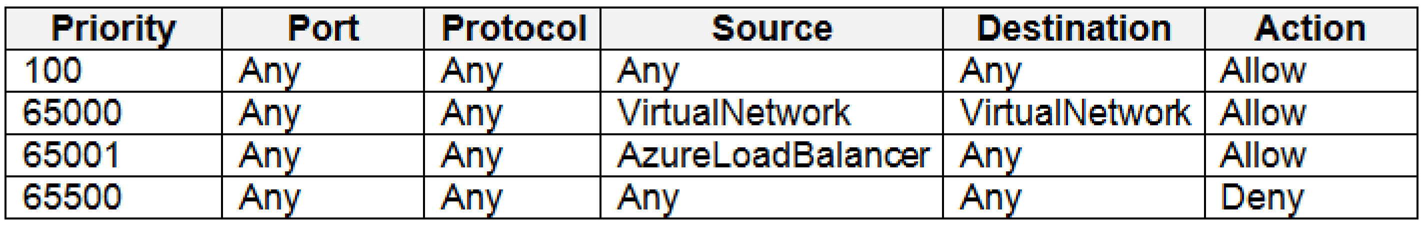
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



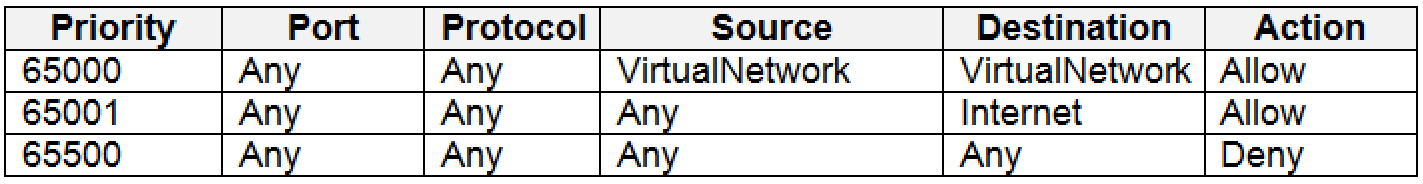
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

Question

You need to meet the technical requirements for VNetwork1.

What should you do first?

A. Create a new subnet on VNetwork1.

B. Remove the NSGs from Subnet11 and Subnet13.

C. Associate an NSG to Subnet12.

D. Configure DDoS protection for VNetwork1.

Correct Answer: *A*

From scenario: Deploy Azure Firewall to VNetwork1 in Sub2.

Azure firewall needs a dedicated subnet named AzureFirewallSubnet.

References:

https://docs.microsoft.com/en-us/azure/firewall/tutorial-firewall-deploy-portal

Topic 9 - Testlet 5

Question #1 *Topic 9*

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

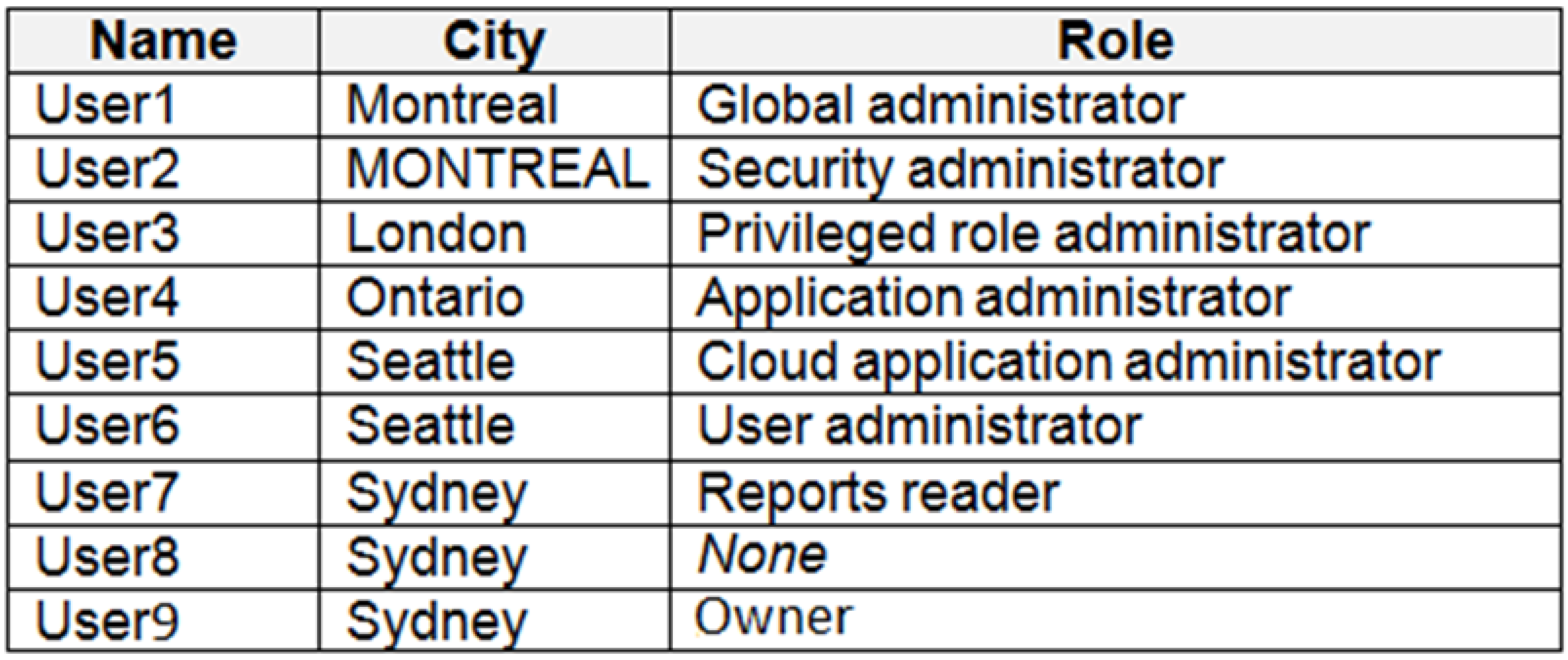
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

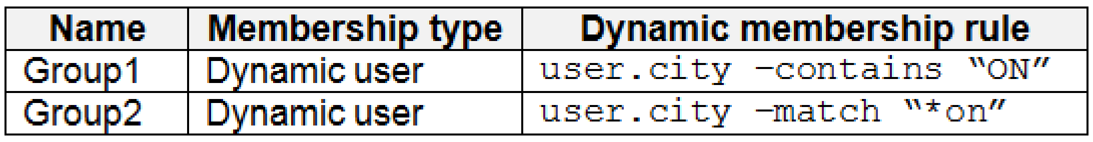
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

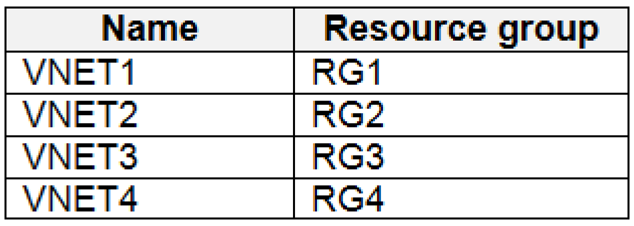


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1 -

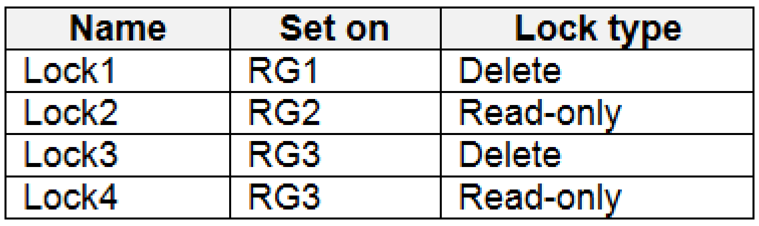
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



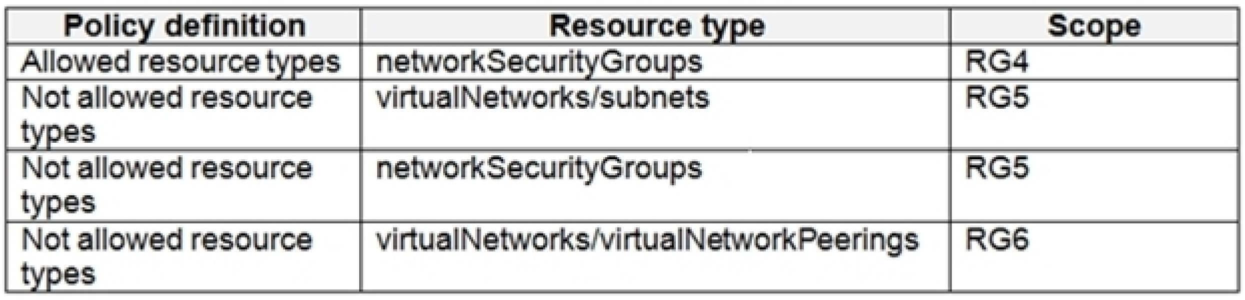
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

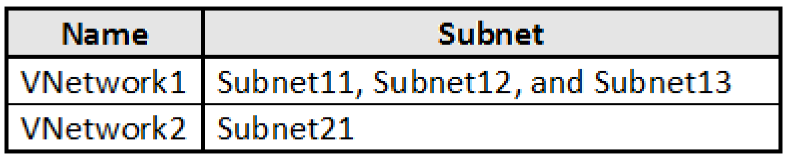
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

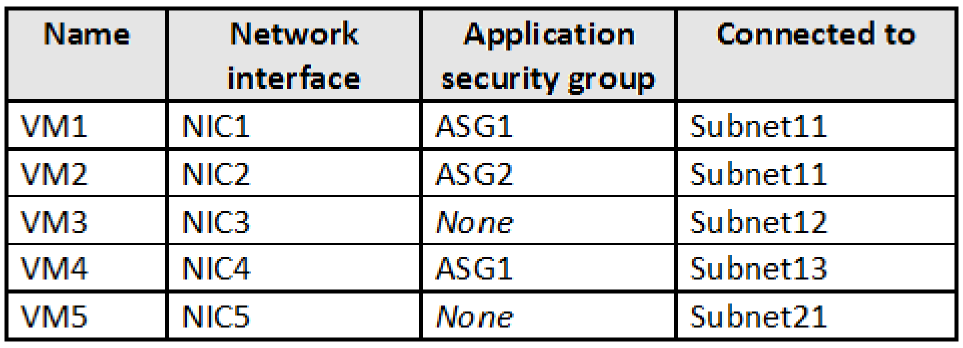
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

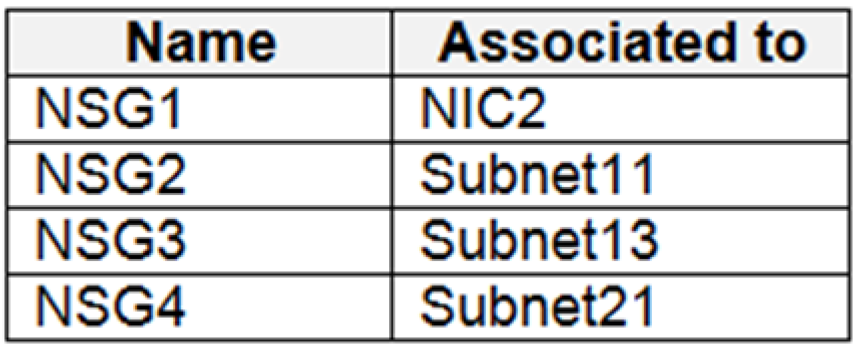
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

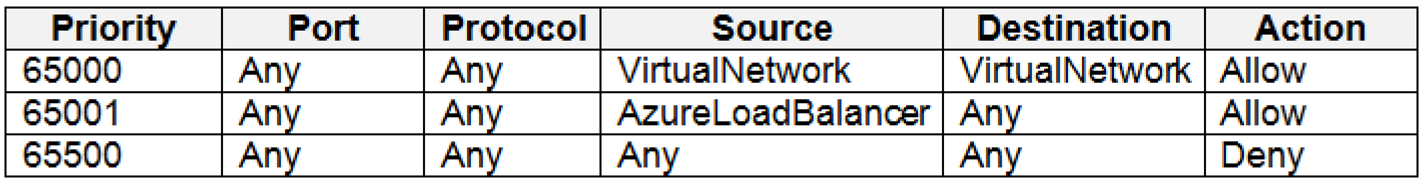
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



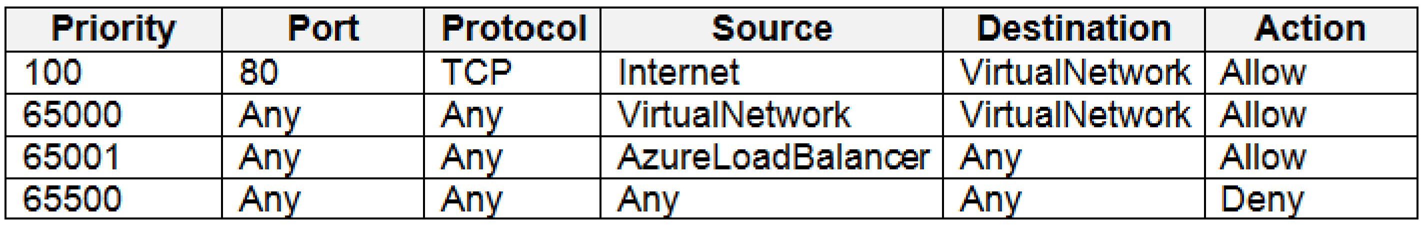
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



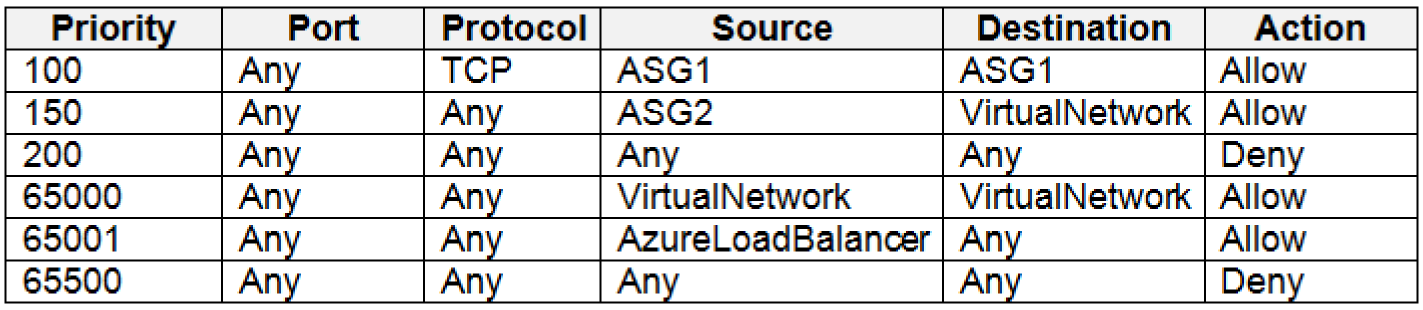
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



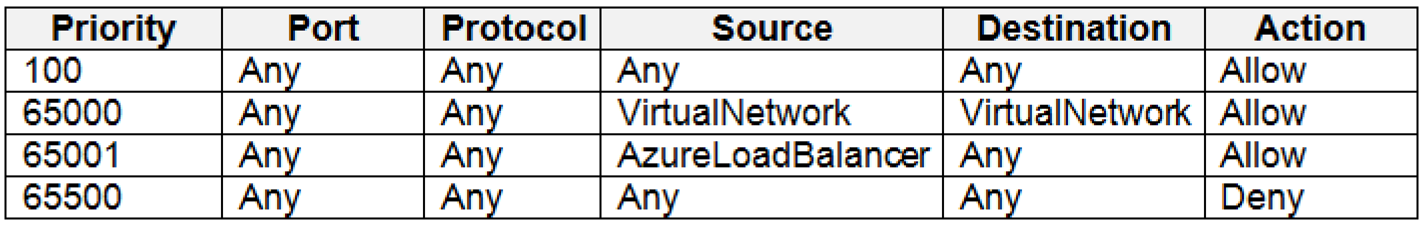
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



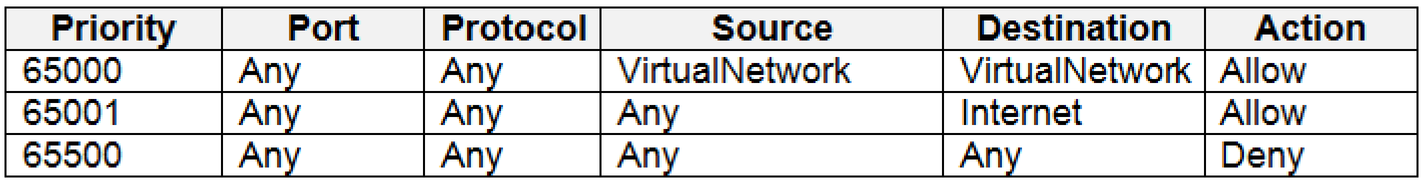
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

Question

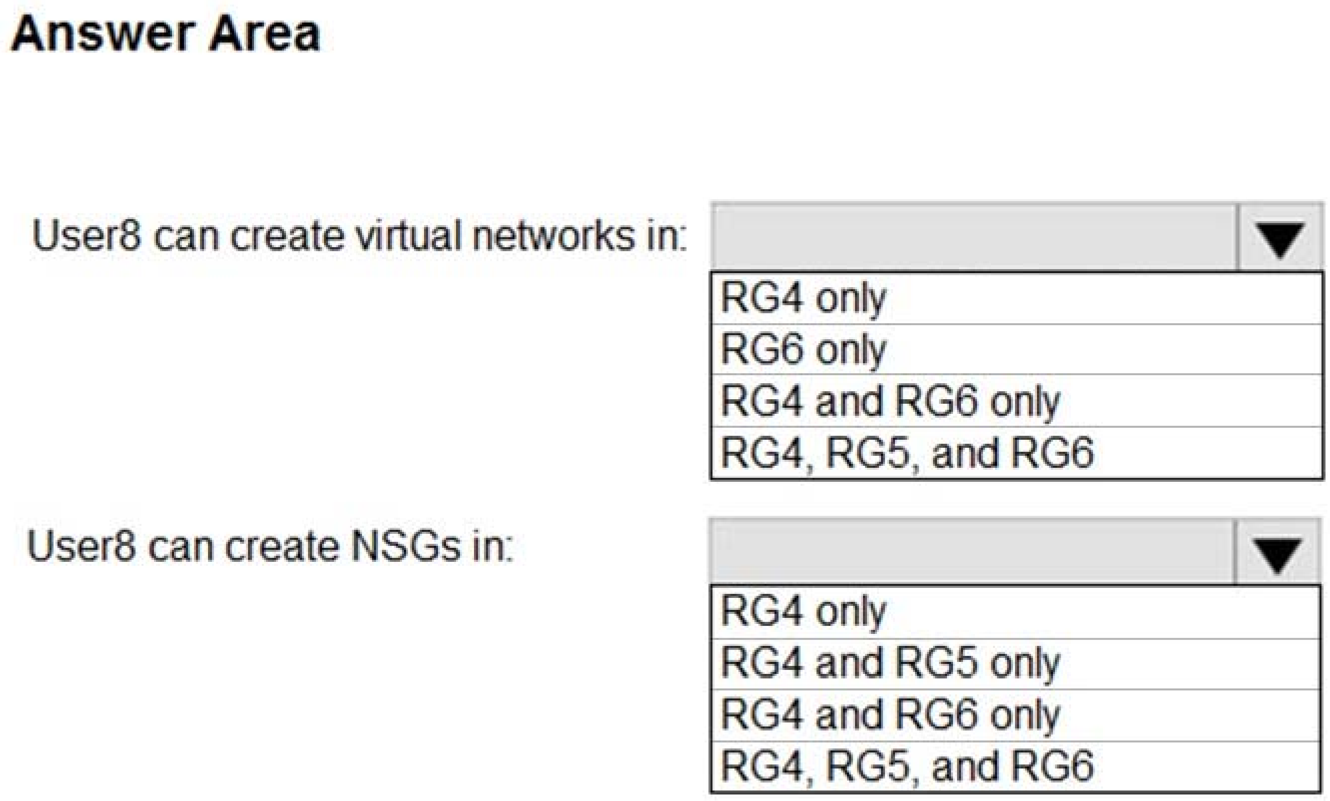
HOTSPOT -

You assign User8 the Owner role for RG4, RG5, and RG6.

In which resource groups can User8 create virtual networks and NSGs? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

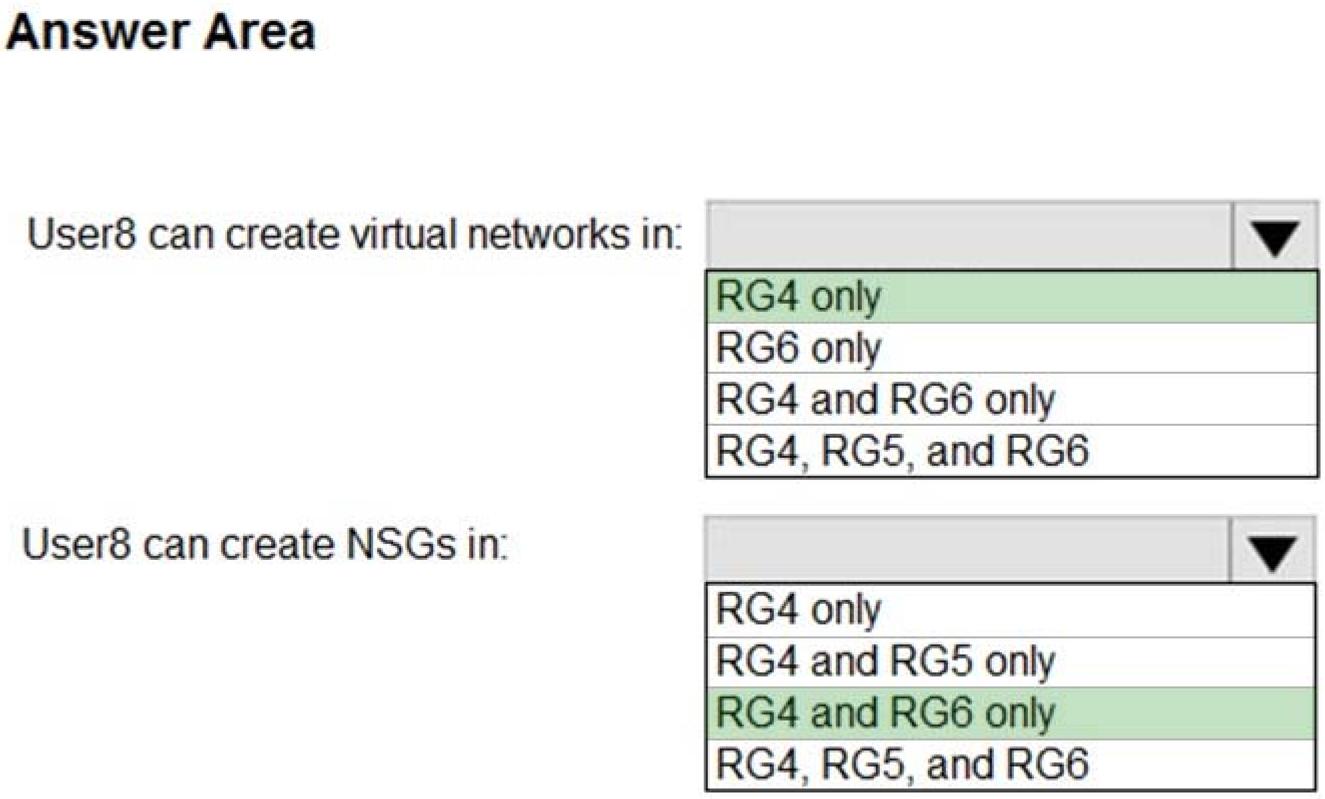
User8 can create virtual networks in:

- RG4 only
- RG6 only
- RG4 and RG6 only
- RG4, RG5, and RG6

User8 can create NSGs in:

- RG4 only
- RG4 and RG5 only
- RG4 and RG6 only
- RG4, RG5, and RG6

Correct Answer:



Answer Area

User8 can create virtual networks in:

- [✓ RG4 only]
- RG6 only
- RG4 and RG6 only
- RG4, RG5, and RG6

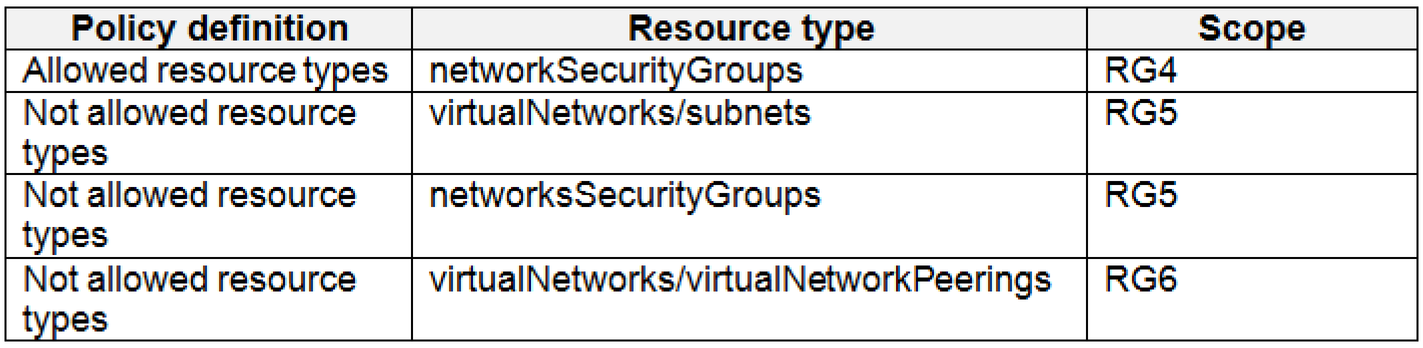
User8 can create NSGs in:

- RG4 only
- RG4 and RG5 only
- [✓ RG4 and RG6 only]
- RG4, RG5, and RG6

Box 1: RG4 only -

The policy does not allow the creation of virtual networks in RG5 or RG6.

Box 2: The policy does not allow the creation of NSGs in RG5.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networksSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

References:

https://docs.microsoft.com/en-us/azure/governance/policy/overview

Question #2 *Topic 9*

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

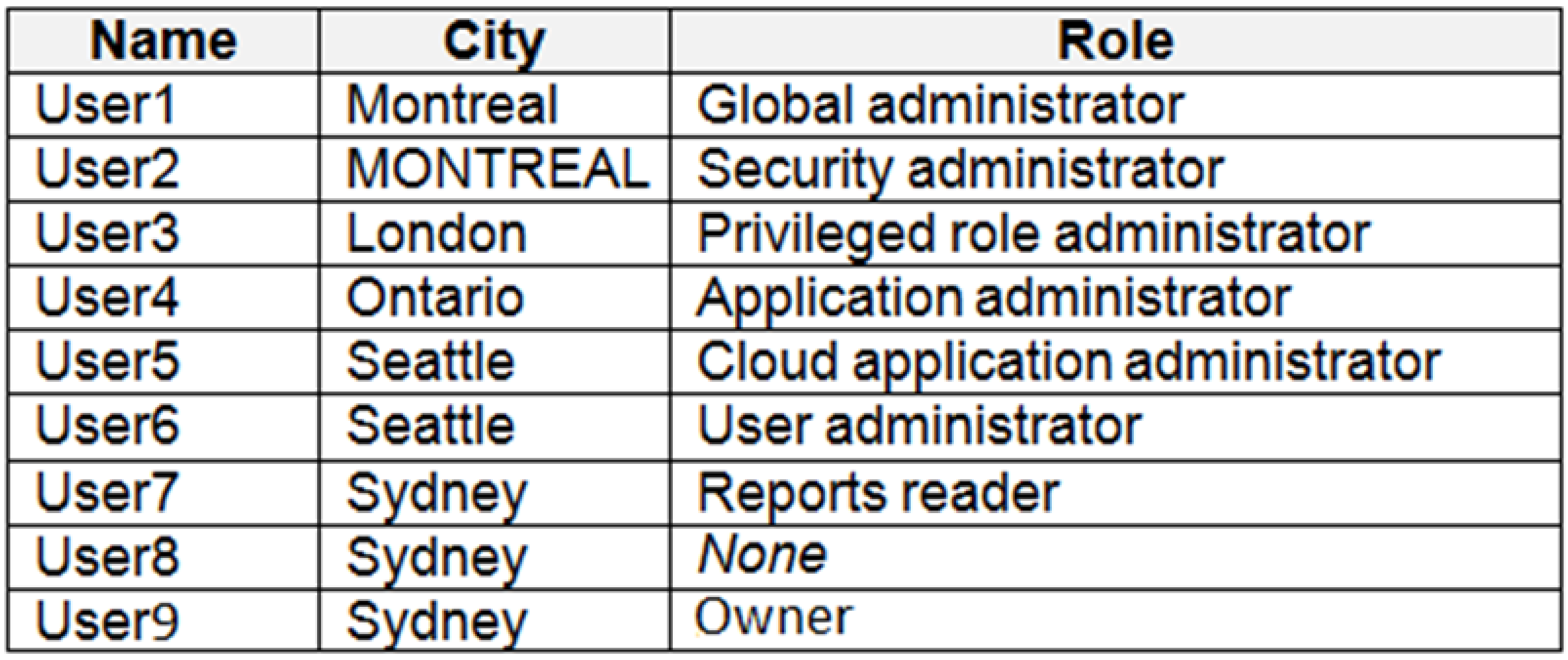
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment -

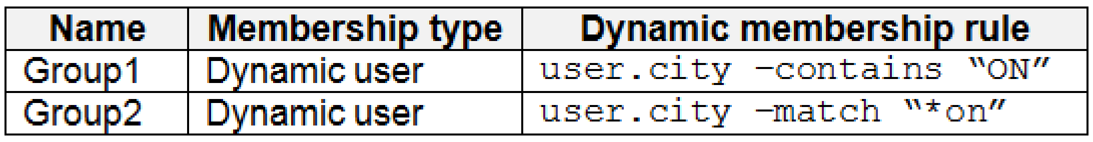
Azure AD -

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

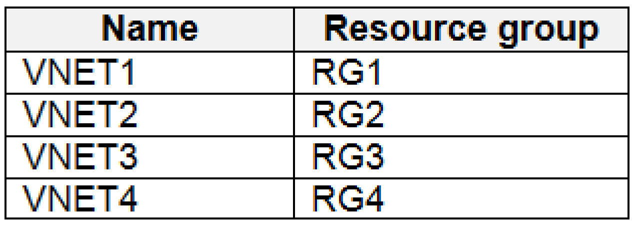


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1 -

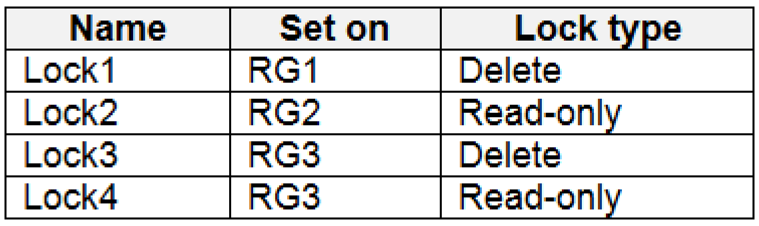
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



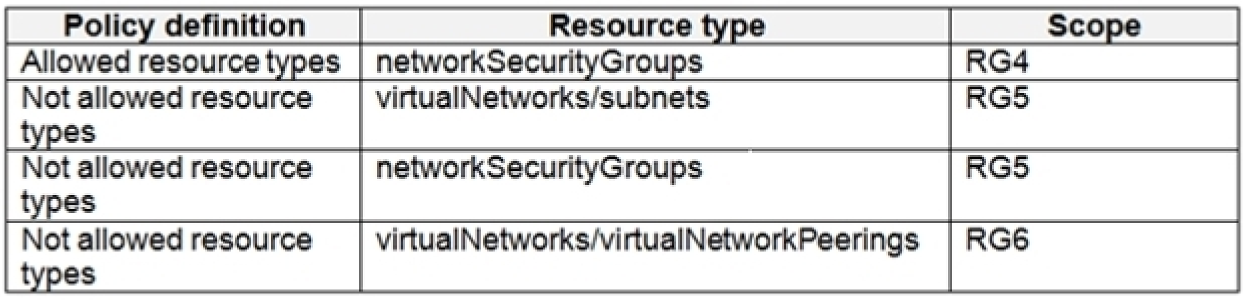
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

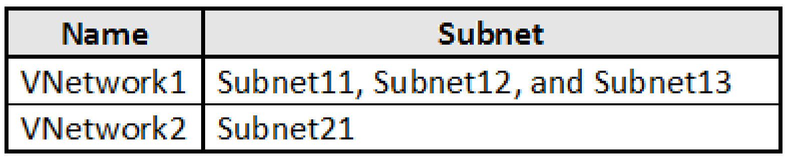
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

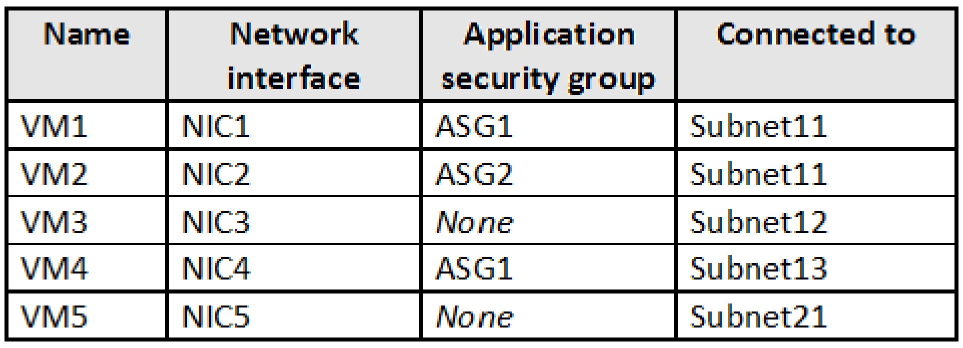
Sub2 -

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

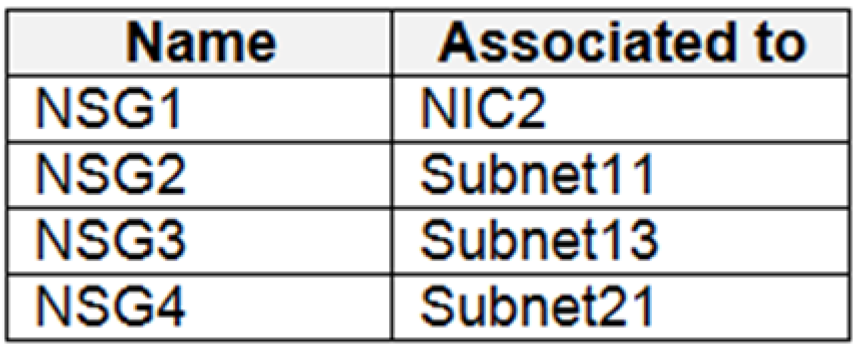
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

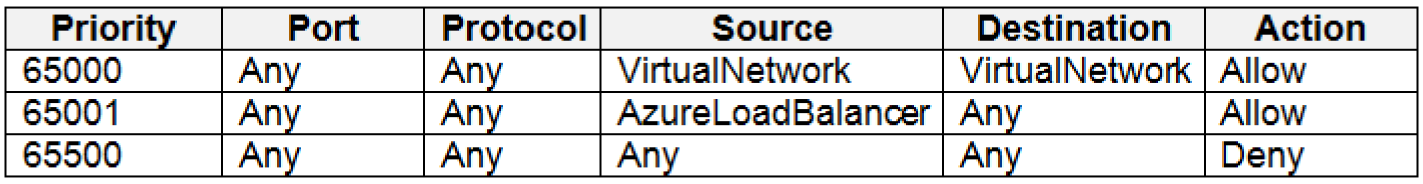
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



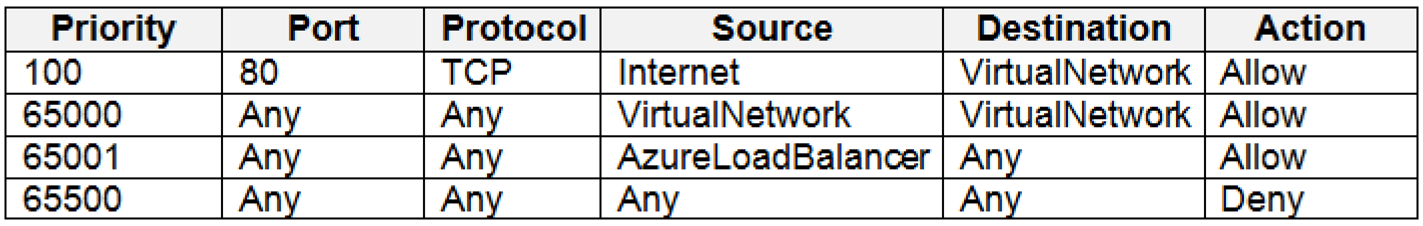
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



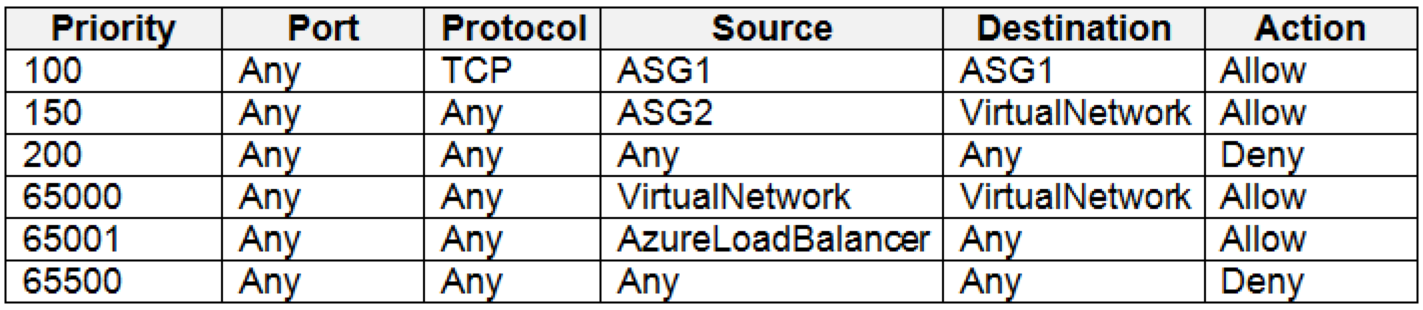
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



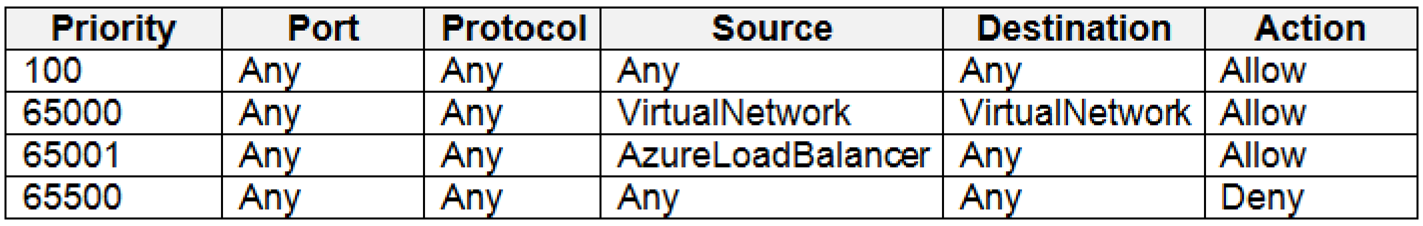
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



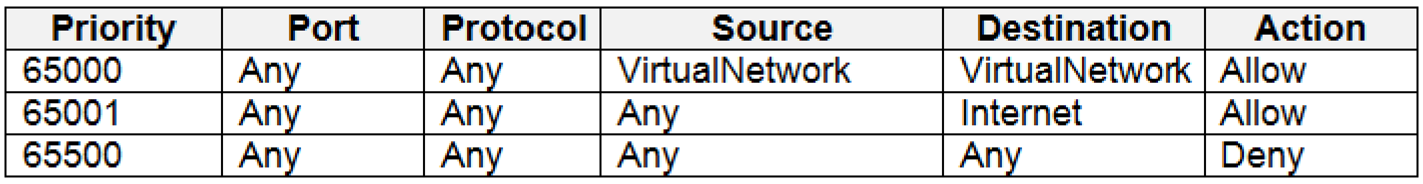
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements -

Contoso identifies the following technical requirements:

Deploy Azure Firewall to VNetwork1 in Sub2.

Register an application named App2 in contoso.com.

Whenever possible, use the principle of least privilege.

Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

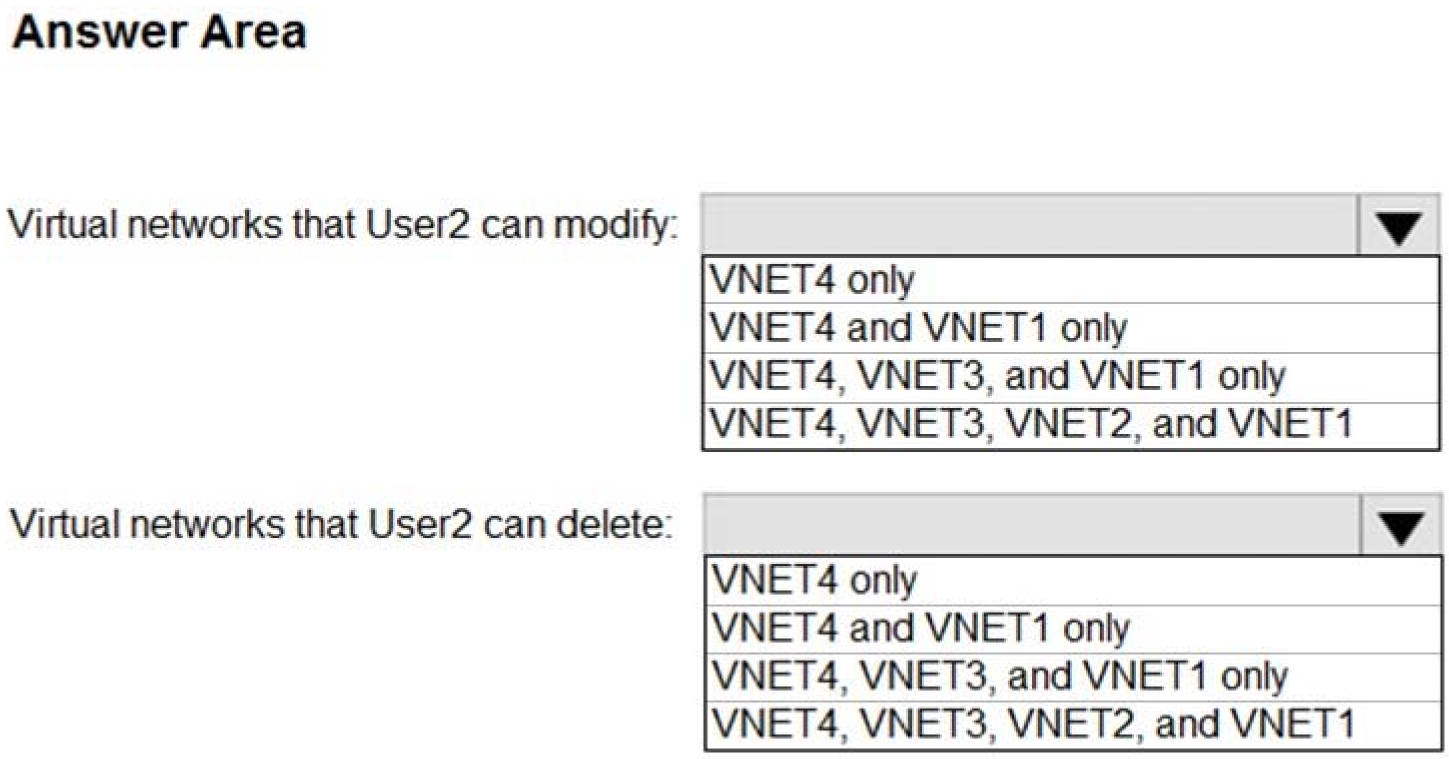
Question

HOTSPOT -

Which virtual networks in Sub1 can User2 modify and delete in their current state? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

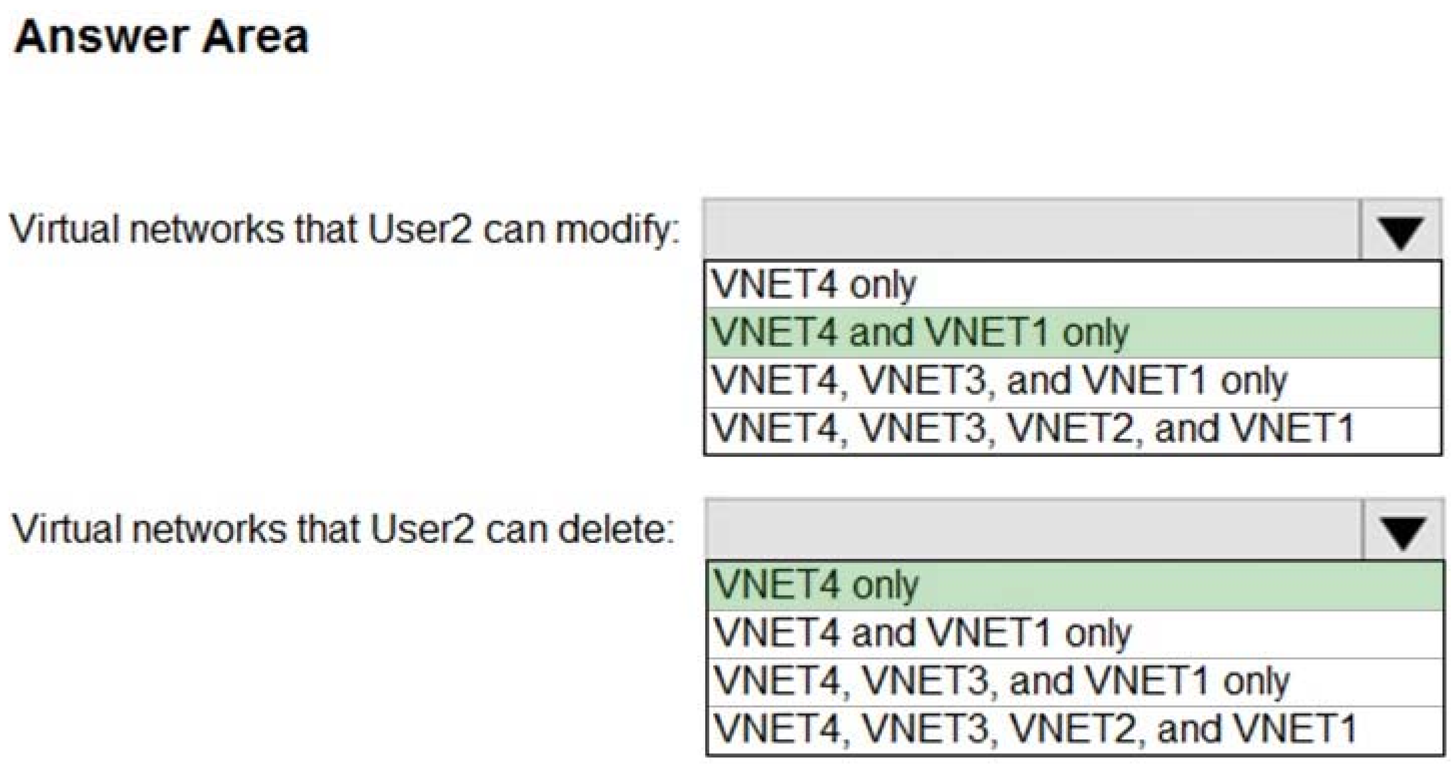
Virtual networks that User2 can modify: ▼

- VNET4 only
- VNET4 and VNET1 only
- VNET4, VNET3, and VNET1 only
- VNET4, VNET3, VNET2, and VNET1

Virtual networks that User2 can delete: ▼

- VNET4 only
- VNET4 and VNET1 only
- VNET4, VNET3, and VNET1 only
- VNET4, VNET3, VNET2, and VNET1

Correct Answer:



Answer Area

Virtual networks that User2 can modify: ▼

- VNET4 only
- [✓ VNET4 and VNET1 only]
- VNET4, VNET3, and VNET1 only
- VNET4, VNET3, VNET2, and VNET1

Virtual networks that User2 can delete: ▼

- [✓ VNET4 only]
- VNET4 and VNET1 only
- VNET4, VNET3, and VNET1 only
- VNET4, VNET3, VNET2, and VNET1

Box 1: VNET4 and VNET1 only -

RG1 has only Delete lock, while there are no locks on RG4.

RG2 and RG3 both have Read-only locks.

Box 2: VNET4 only -

There are no locks on RG4, while the other resource groups have either Delete or Read-only locks.

Note: As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. You can set the lock level to CanNotDelete or ReadOnly. In the portal, the locks are called

Delete and Read-only respectively.

➾ CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource.

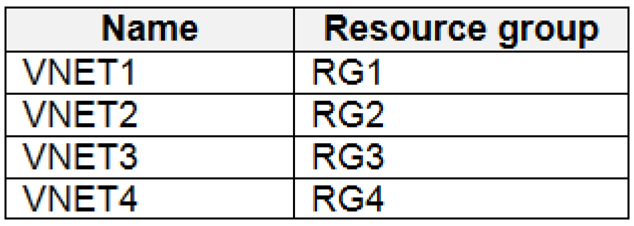
➾ ReadOnly means authorized users can read a resource, but they can't delete or update the resource. Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role.

Scenario:

User2 is a Security administrator.

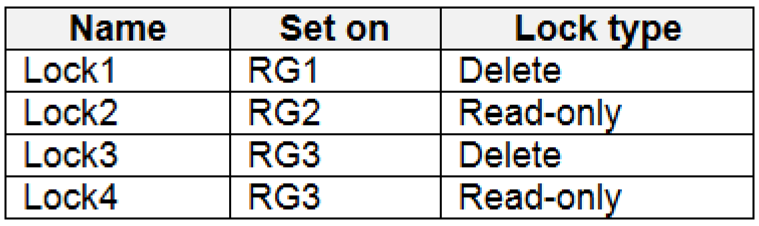
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User2 creates the virtual networks shown in the following table.



Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

References:

https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-lock-resources

Topic 10 - Testlet 6

Question #1 *Topic 10*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

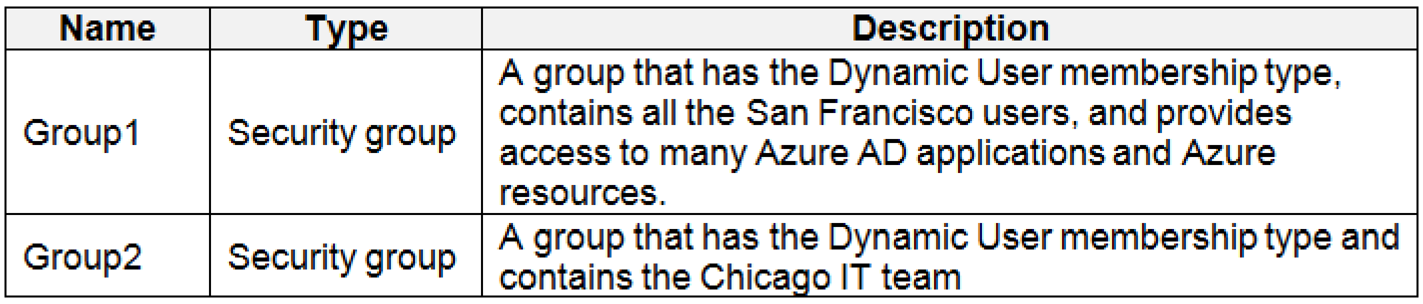
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

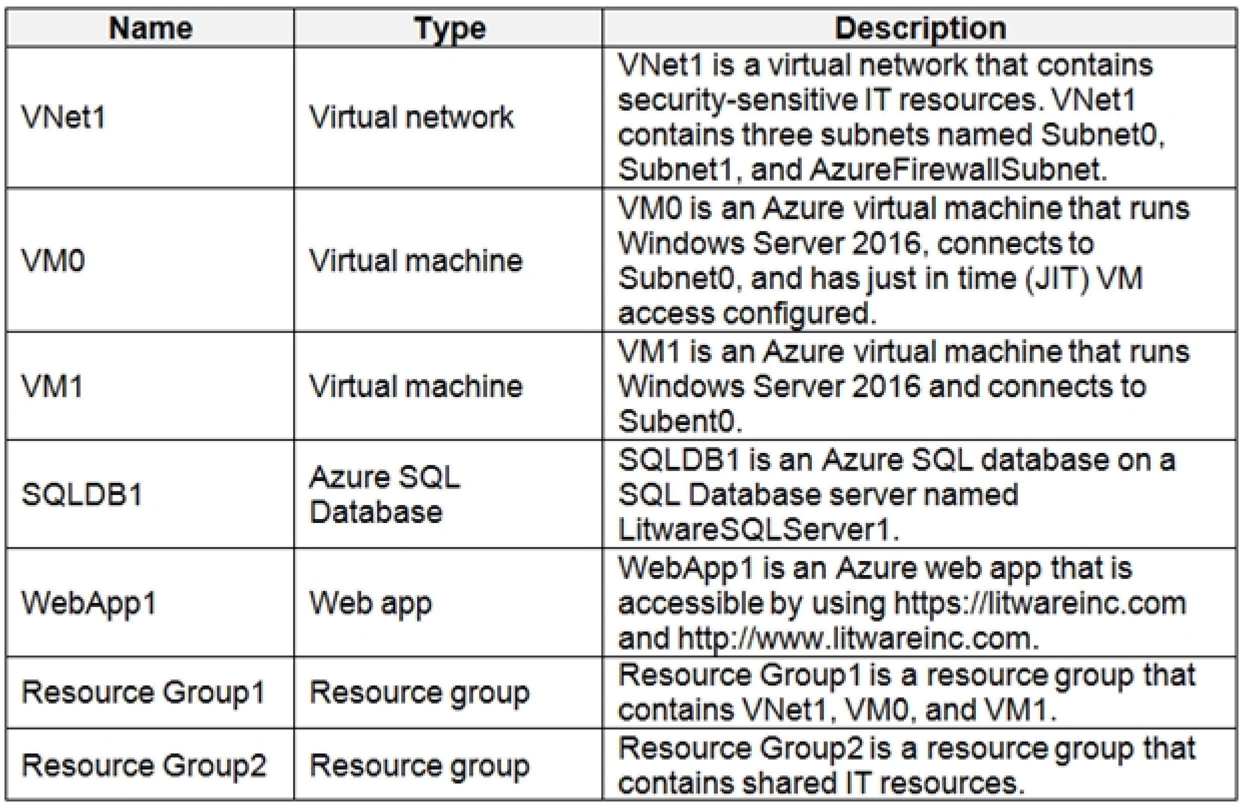
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.

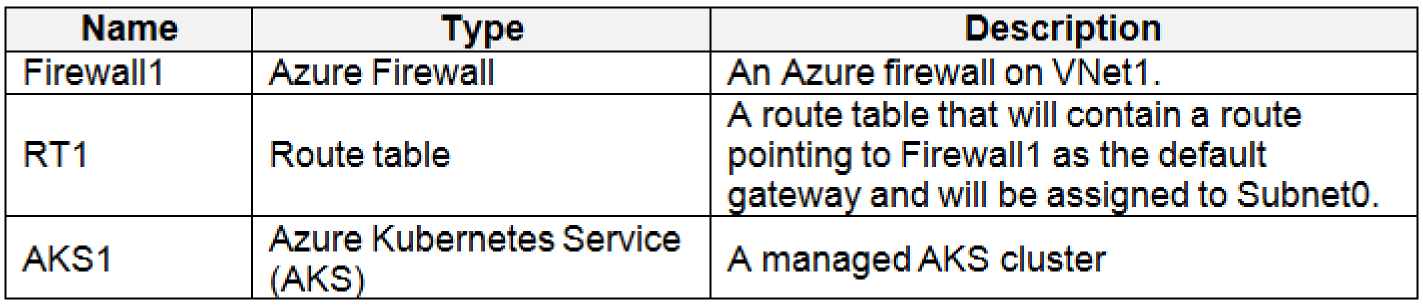


Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

▪

Question

You need to ensure that you can meet the security operations requirements.

What should you do first?

A. Turn on Auto Provisioning in Security Center.

B. Integrate Security Center and Microsoft Cloud App Security.

C. Upgrade the pricing tier of Security Center to Standard.

D. Modify the Security Center workspace configuration.

Correct Answer: *C*

The Standard tier extends the capabilities of the Free tier to workloads running in private and other public clouds, providing unified security management and threat protection across your hybrid cloud workloads. The Standard tier also adds advanced threat detection capabilities, which uses built-in behavioral analytics and machine learning to identify attacks and zero-day exploits, access and application controls to reduce exposure to network attacks and malware, and more.

Scenario: Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

References:

https://docs.microsoft.com/en-us/azure/security-center/security-center-pricing

Topic 11 - Testlet 7

Question #1 *Topic 11*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

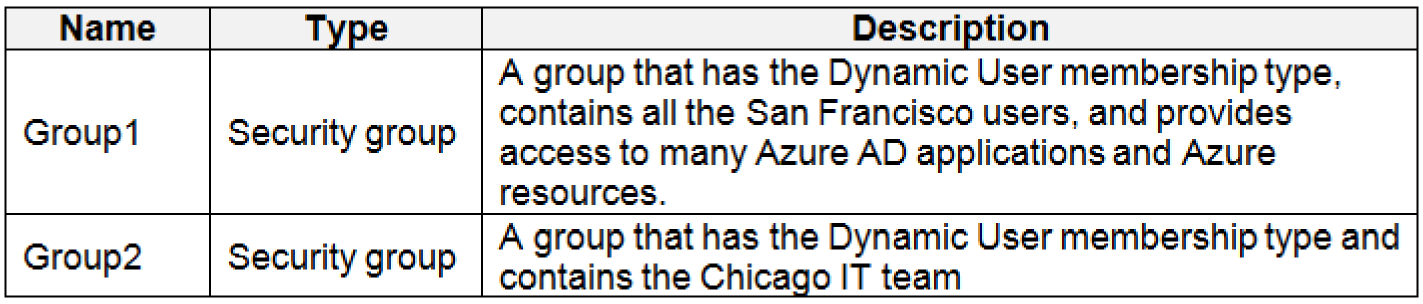
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

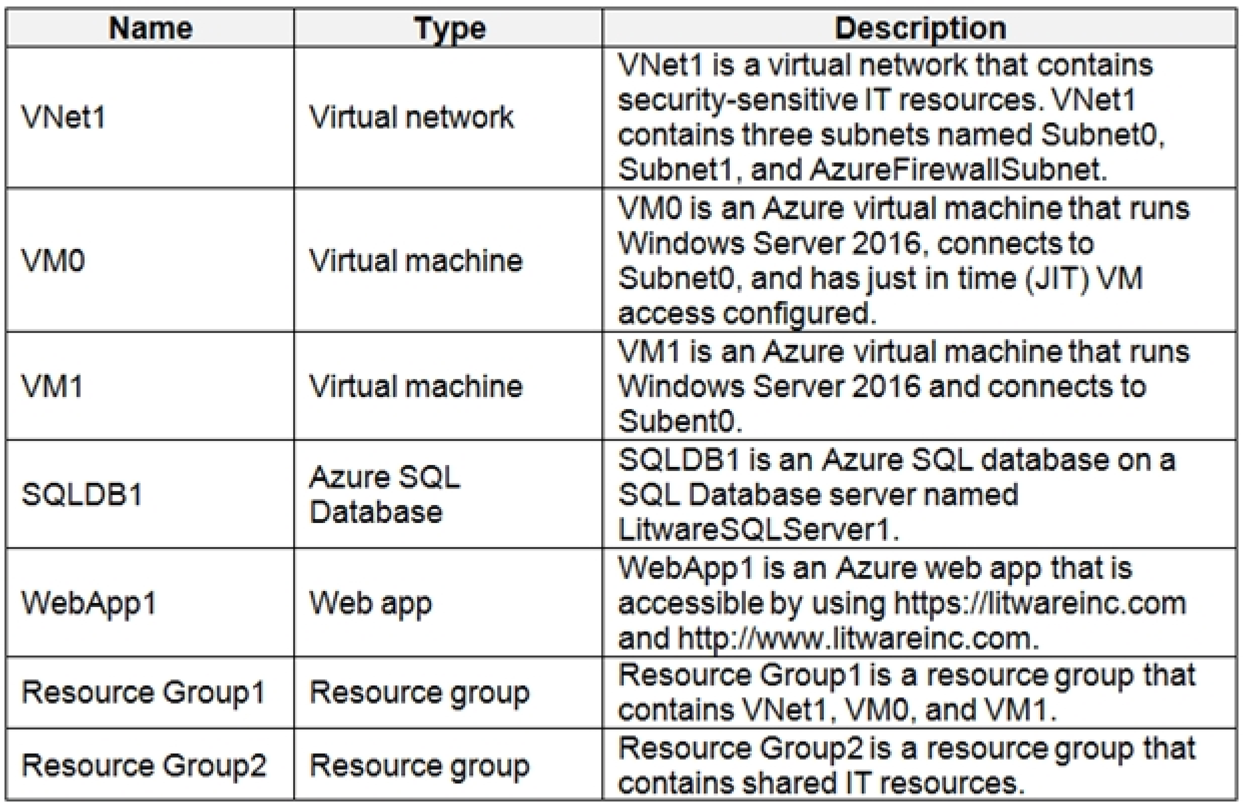
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.

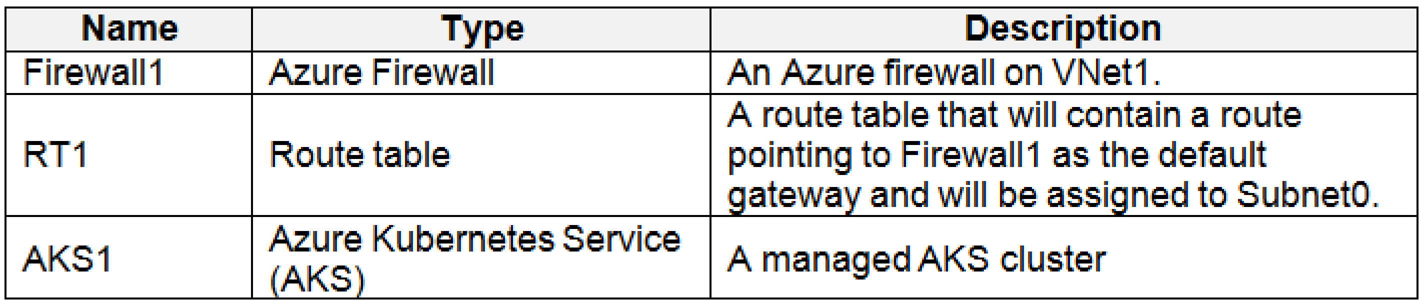


Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

▪

Question

You need to configure WebApp1 to meet the data and application requirements.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. Upload a public certificate.

B. Turn on the HTTPS Only protocol setting.

C. Set the Minimum TLS Version protocol setting to 1.2.

D. Change the pricing tier of the App Service plan.

E. Turn on the Incoming client certificates protocol setting.

Correct Answer: *AC*

A: To configure Certificates for use in Azure Websites Applications you need to upload a public Certificate.

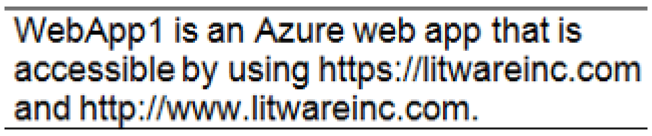
C: Over time, multiple versions of TLS have been released to mitigate different vulnerabilities. TLS 1.2 is the most current version available for apps running on

Azure App Service.

Incorrect Answers:

B: We need support the http url as well.

Note:



WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.

References:

https://docs.microsoft.com/en-us/azure/app-service/app-service-web-configure-tls-mutual-auth https://azure.microsoft.com/en-us/updates/app-service-and-functions-hosted-apps-can-now-update-tls-versions/

Question #2 *Topic 11*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

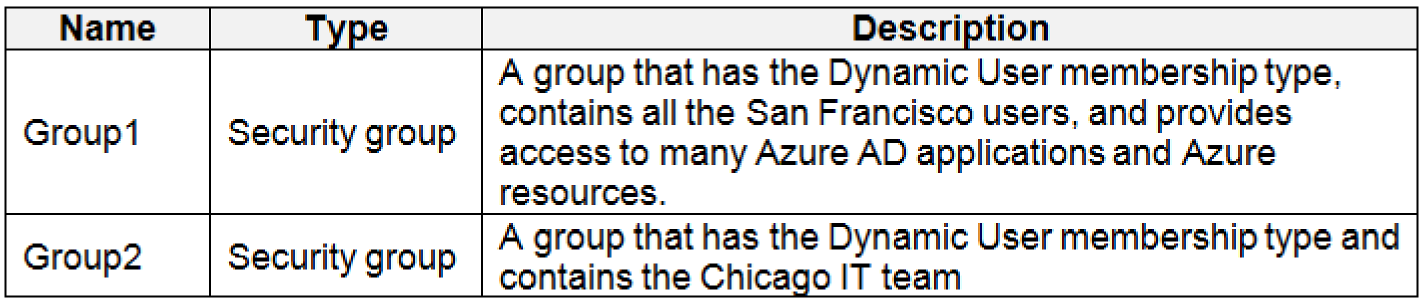
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

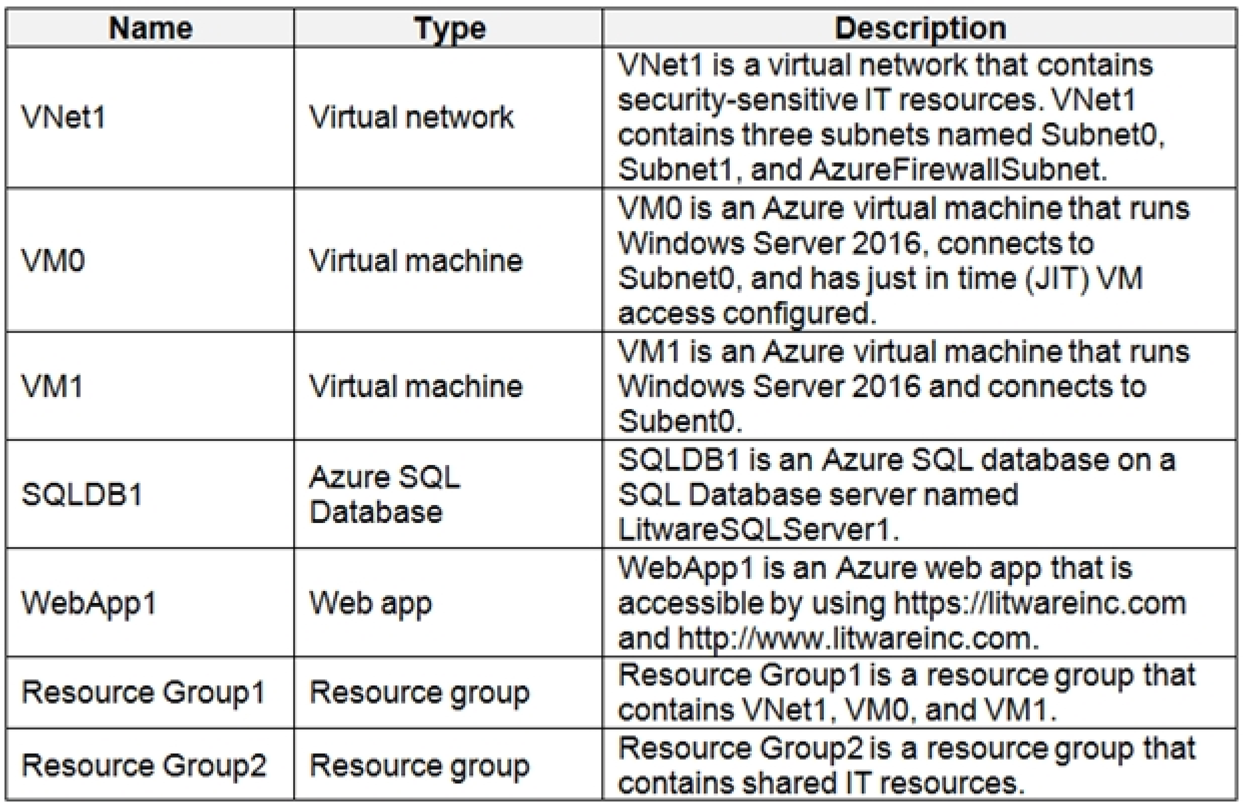
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.

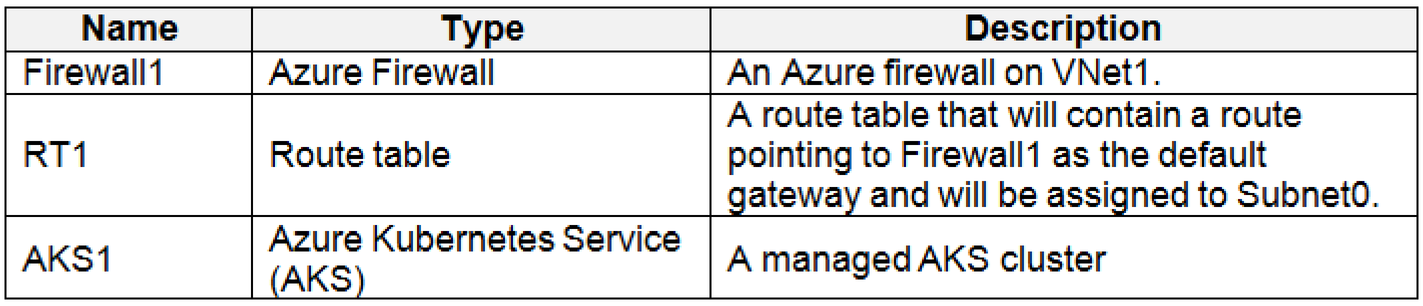


Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

Question

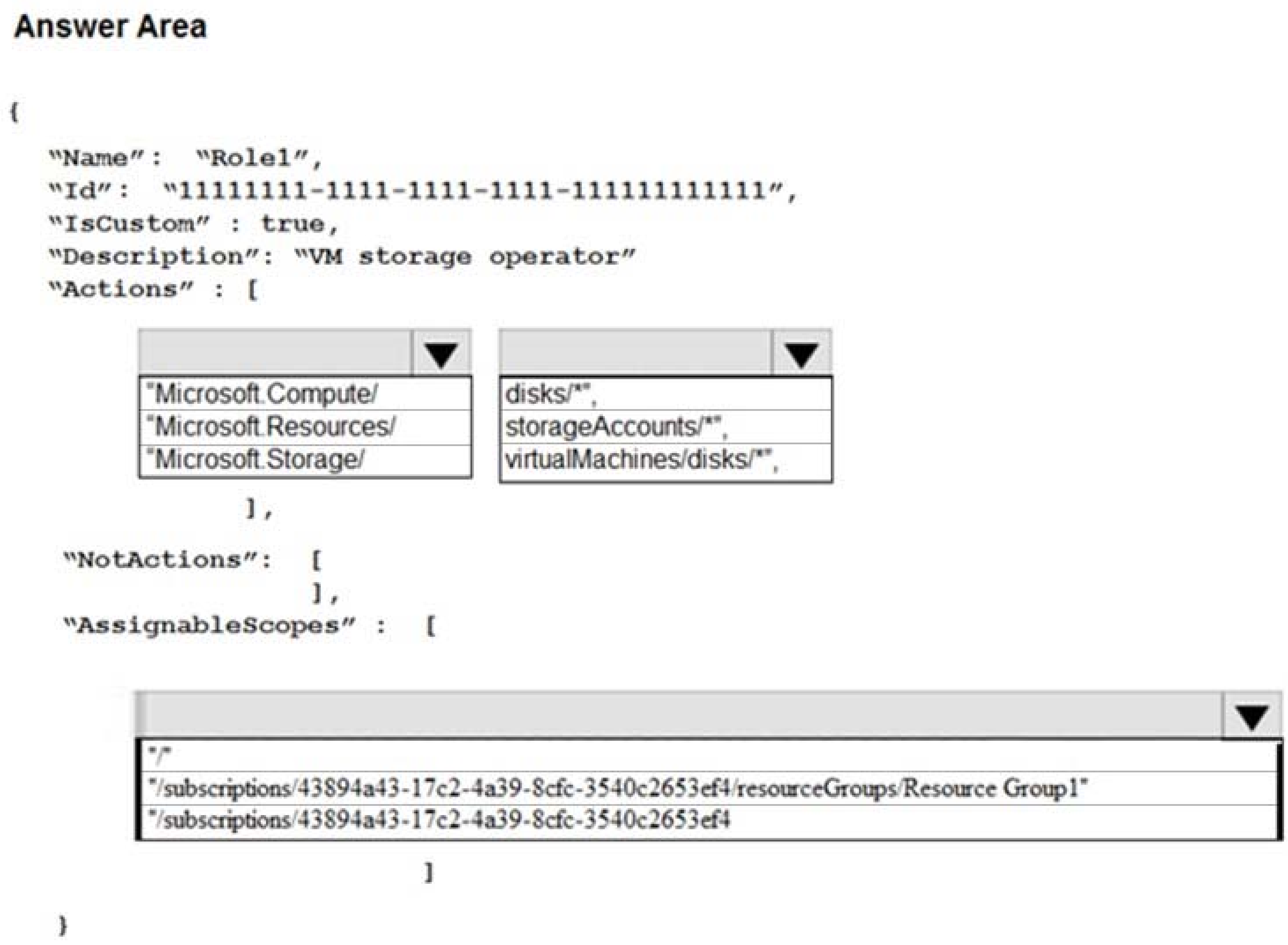
HOTSPOT -

You need to create Role1 to meet the platform protection requirements.

How should you complete the role definition of Role1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

```
{
   "Name":  "Role1",
   "Id":  "11111111-1111-1111-1111-111111111111",
   "IsCustom" : true,
   "Description": "VM storage operator"
   "Actions" : [
```

- "Microsoft.Compute/
- "Microsoft.Resources/
- "Microsoft.Storage/

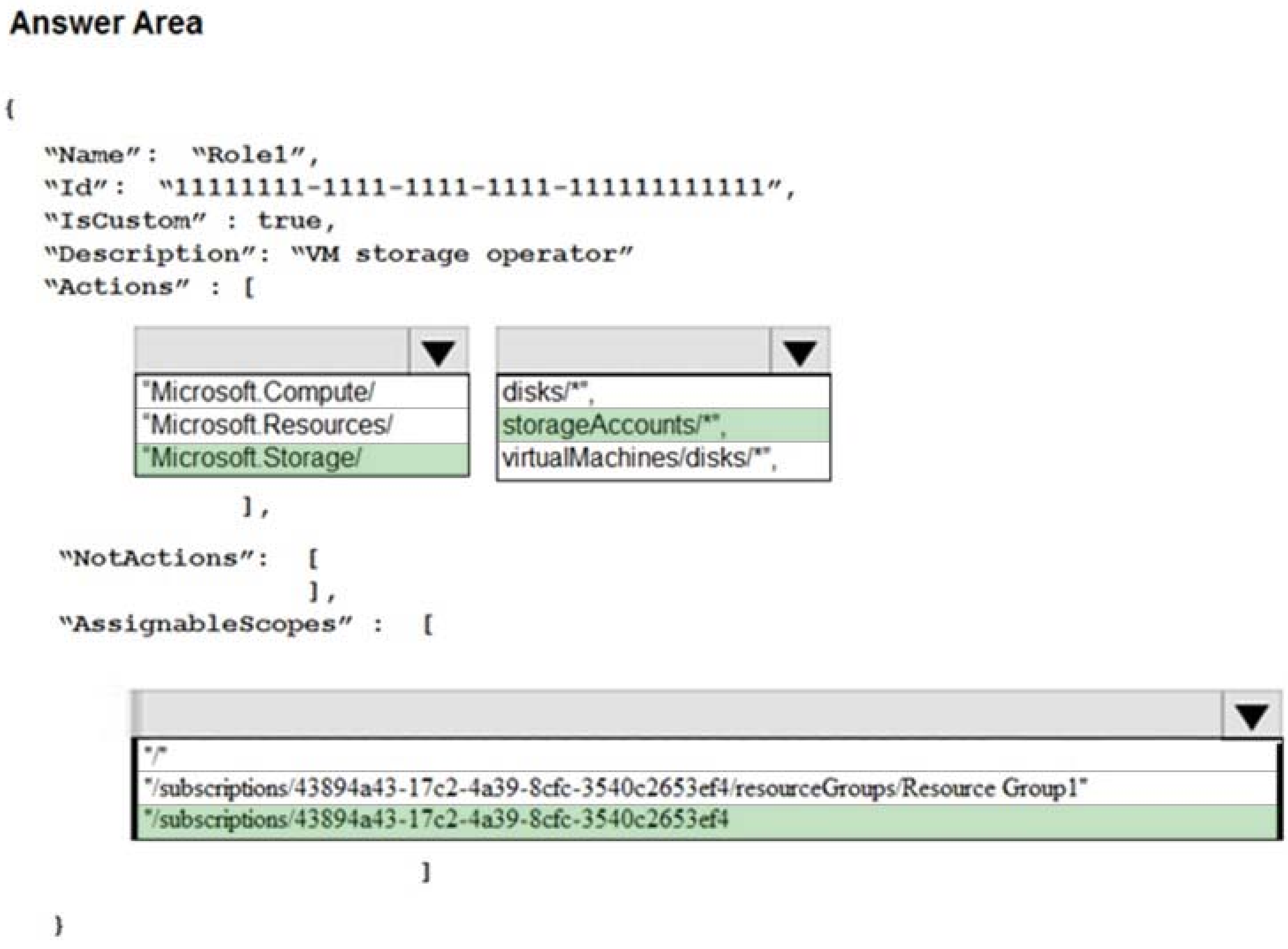
- disks/*",
- storageAccounts/*",
- virtualMachines/disks/*",

```
            ],
    "NotActions":   [
                    ],
    "AssignableScopes" :   [
```

- "/"
- "/subscriptions/43894a43-17c2-4a39-8cfc-3540c2653ef4/resourceGroups/Resource Group1"
- "/subscriptions/43894a43-17c2-4a39-8cfc-3540c2653ef4

```
                           ]
    }
```

Correct Answer:



Answer Area

```
{
   "Name":  "Role1",
   "Id":  "11111111-1111-1111-1111-111111111111",
   "IsCustom" : true,
   "Description": "VM storage operator"
   "Actions" : [
```

- "Microsoft.Compute/
- "Microsoft.Resources/
- [✓ "Microsoft.Storage/]

- disks/*",
- [✓ storageAccounts/*",]
- virtualMachines/disks/*",

```
            ],
    "NotActions":   [
                    ],
    "AssignableScopes" :   [
```

- "/"
- "/subscriptions/43894a43-17c2-4a39-8cfc-3540c2653ef4/resourceGroups/Resource Group1"
- [✓ "/subscriptions/43894a43-17c2-4a39-8cfc-3540c2653ef4]

```
                           ]
    }
```

Scenario: A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Azure RBAC template managed disks "Microsoft.Storage/"

References:

https://blogs.msdn.microsoft.com/azureedu/2017/02/11/new-managed-disk-storage-option-for-your-azure-vms/

https://blogs.msdn.microsoft.com/azure4fun/2016/10/21/custom-azure-rbac-roles-and-how-to-extend-existing-role-definitions-scope/

Question #3 *Topic 11*

Introductory Info

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other question on this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next sections of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question on this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

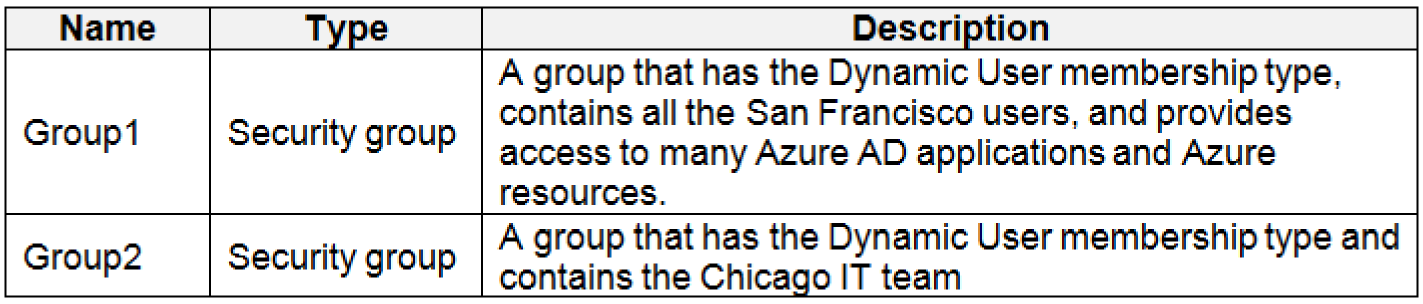
Existing Environment -

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the

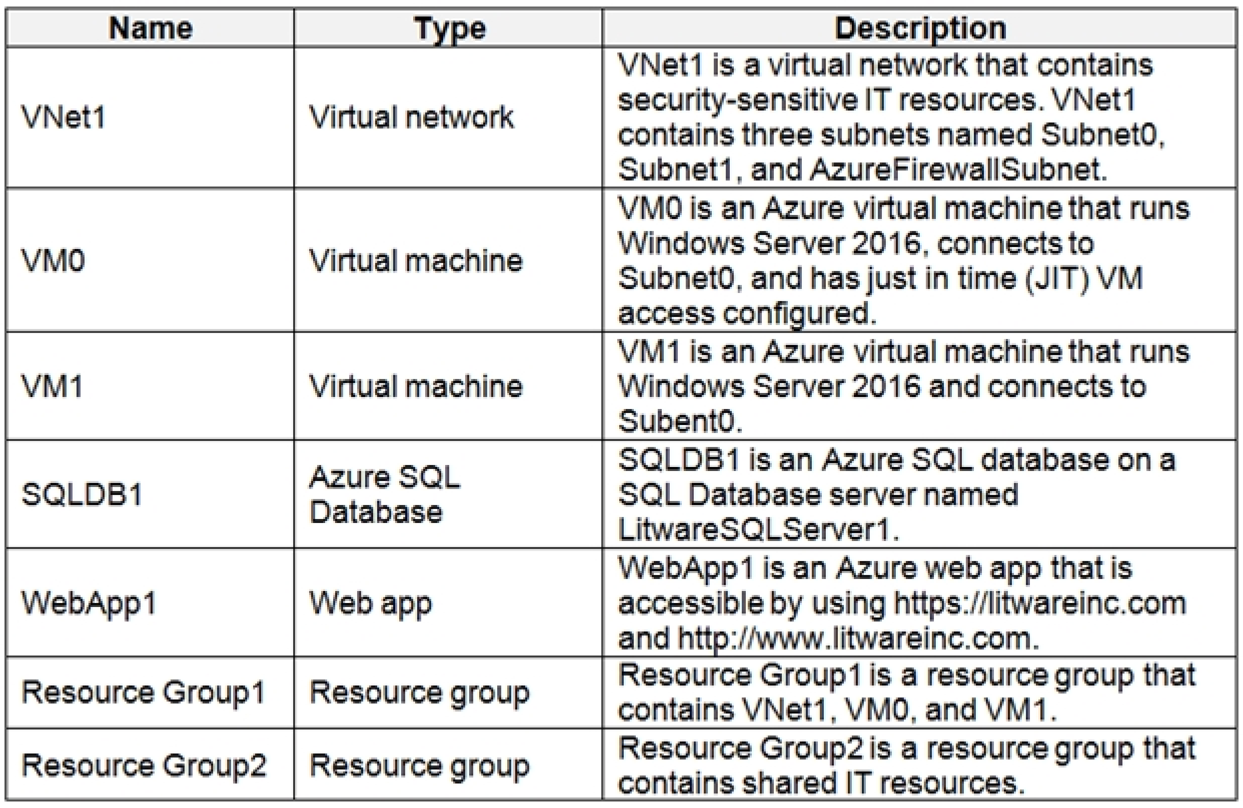
Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.

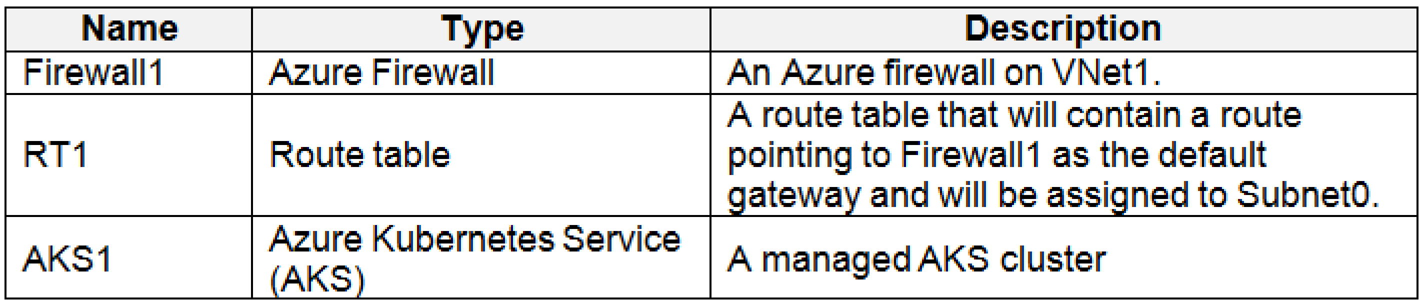


Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subent0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.
Resource Group1	Resource group	Resource Group1 is a resource group that contains VNet1, VM0, and VM1.
Resource Group2	Resource group	Resource Group2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Free tier.

Planned changes -

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

All San Francisco users and their devices must be members of Group1.

The members of Group2 must be assigned the Contributor role to Resource Group2 by using a permanent eligible assignment.

Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

Microsoft Antimalware must be installed on the virtual machines in Resource Group1.

The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.

Azure AD users must be to authenticate to AKS1 by using their Azure AD credentials.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.

A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in Resource Group1. Role1 must be available only for Resource Group1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials.

WebApp1 must enforce mutual authentication.

General Requirements -

Litware identifies the following general requirements:

Whenever possible, administrative effort must be minimized.

Whenever possible, use of automation must be minimized.

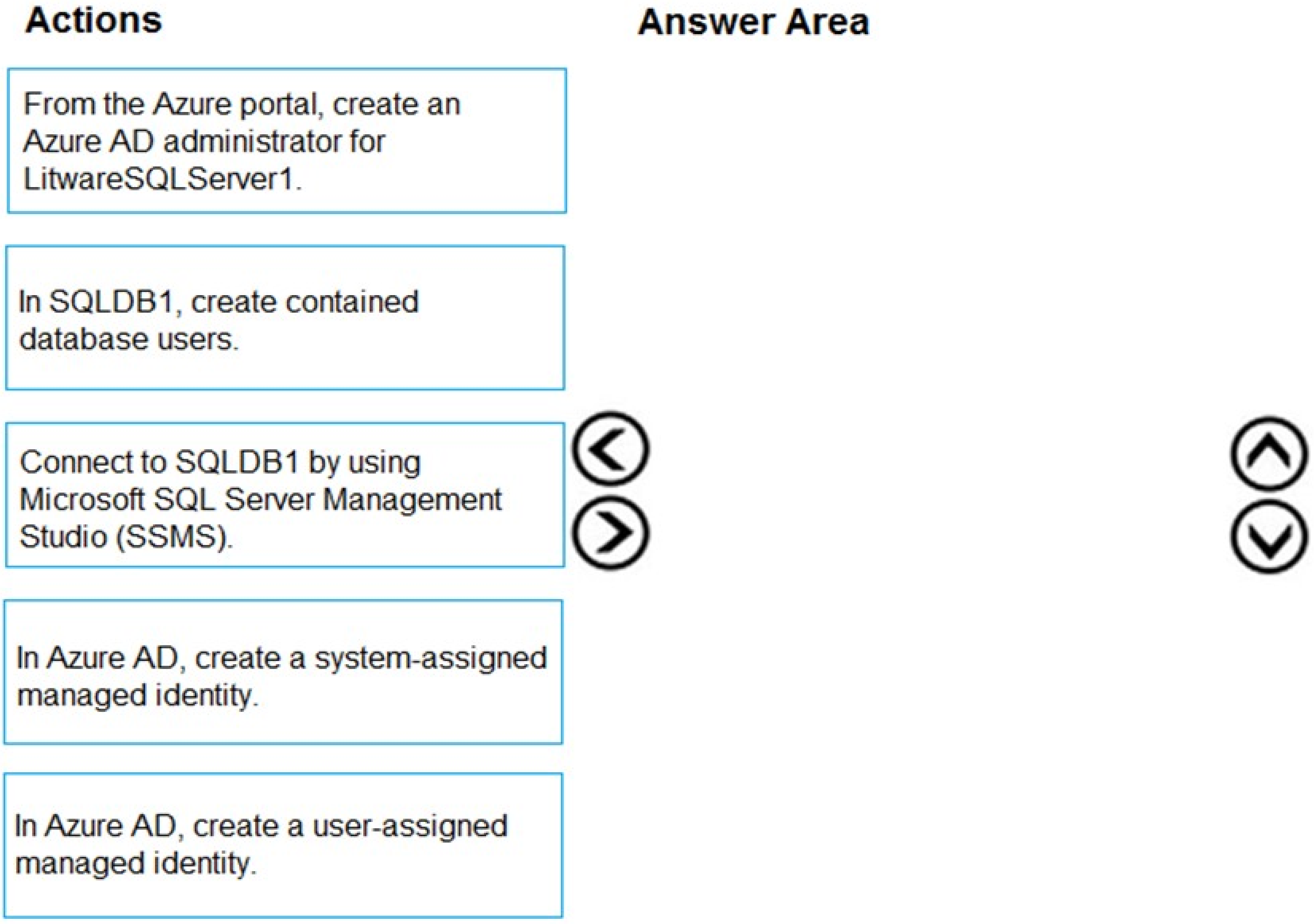
Question

DRAG DROP -

You need to configure SQLDB1 to meet the data and application requirements.

Which three actions should you recommend be performed in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



Actions

From the Azure portal, create an Azure AD administrator for LitwareSQLServer1.

In SQLDB1, create contained database users.

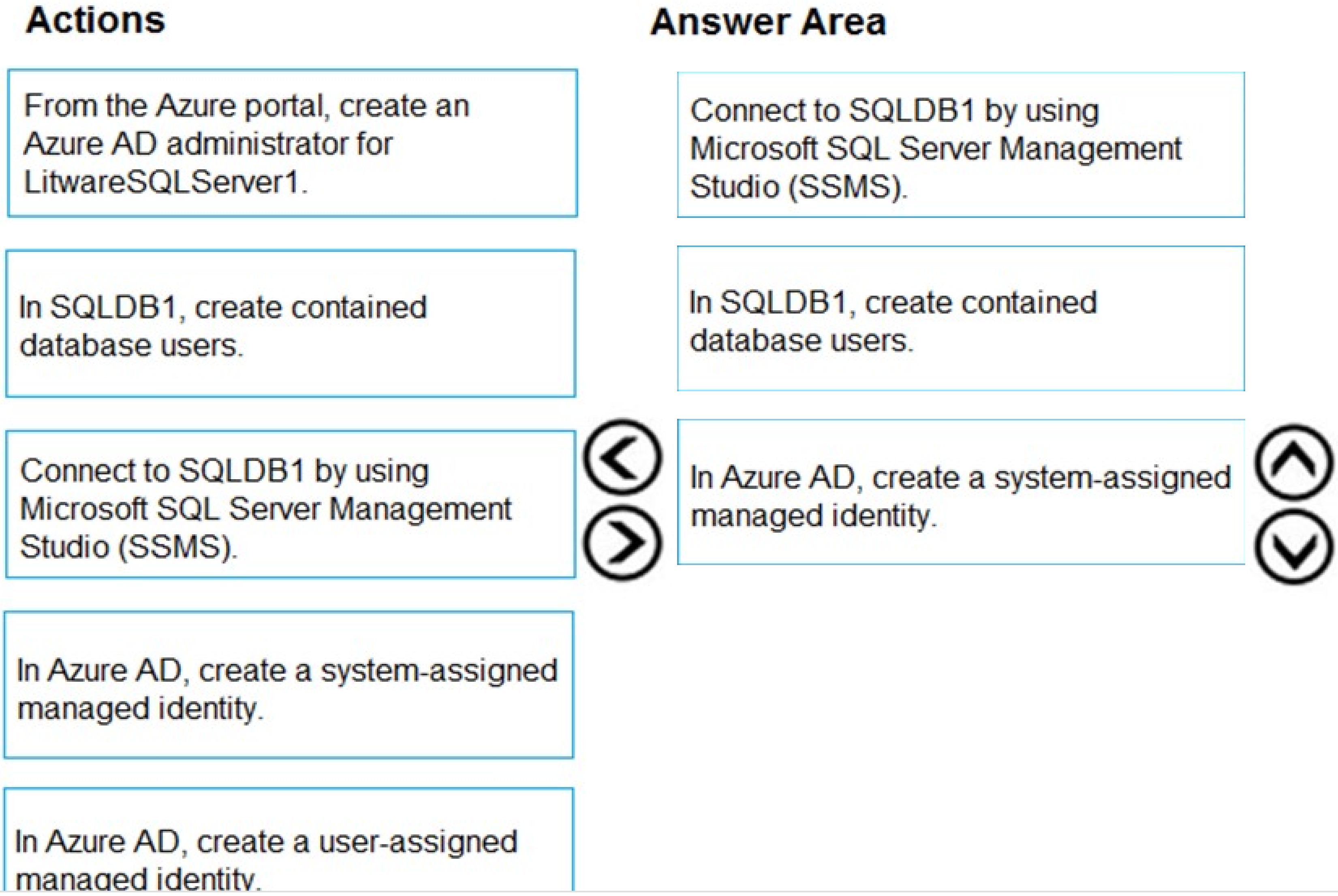
Connect to SQLDB1 by using Microsoft SQL Server Management Studio (SSMS).

In Azure AD, create a system-assigned managed identity.

In Azure AD, create a user-assigned managed identity.

Answer Area

Correct Answer:



Actions

From the Azure portal, create an Azure AD administrator for LitwareSQLServer1.

In SQLDB1, create contained database users.

Connect to SQLDB1 by using Microsoft SQL Server Management Studio (SSMS).

In Azure AD, create a system-assigned managed identity.

In Azure AD, create a user-assigned managed identity.

Answer Area

Connect to SQLDB1 by using Microsoft SQL Server Management Studio (SSMS).

In SQLDB1, create contained database users.

In Azure AD, create a system-assigned managed identity.

Step 1: Connect to SQLDB1 by using Microsoft SQL Server Management Studio (SSMS)

Step 2: In SQLDB1, create contained database users.

Create a contained user in the database that represents the VM's system-assigned identity.

Step 3: In Azure AD,create a system-assigned managed identity.

A system-assigned identity for a Windows virtual machine (VM) can be used to access an Azure SQL server. Managed Service Identities are automatically managed by Azure and enable you to authenticate to services that support Azure AD authentication, without needing to insert

Question #1 Topic 12

You have Azure Resource Manager templates that you use to deploy Azure virtual machines.
You need to disable unused Windows features automatically as instances of the virtual machines are provisioned.
What should you use?

A. device compliance policies in Microsoft Intune

B. Azure Automation State Configuration

C. application security groups

D. Azure Advisor

Correct Answer: *B*
You can use Azure Automation State Configuration to manage Azure VMs (both Classic and Resource Manager), on-premises VMs, Linux machines, AWS VMs, and on-premises physical machines.
Note: Azure Automation State Configuration provides a DSC pull server similar to the Windows Feature DSC-Service so that target nodes automatically receive configurations, conform to the desired state, and report back on their compliance. The built-in pull server in Azure Automation eliminates the need to set up and maintain your own pull server. Azure Automation can target virtual or physical Windows or Linux machines, in the cloud or on-premises.
References:
https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started

Question #2 Topic 12

HOTSPOT -
You suspect that users are attempting to sign in to resources to which they have no access.
You need to create an Azure Log Analytics query to identify failed user sign-in attempts from the last three days. The results must only show users who had more than five failed sign-in attempts.
How should you configure the query? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Correct Answer: *Explanation*
The following example identifies user accounts that failed to log in more than five times in the last day, and when they last attempted to log in.
let timeframe = 1d;

SecurityEvent -
| where TimeGenerated > ago(1d)
| where AccountType == 'User' and EventID == 4625 // 4625 - failed log in
| summarize failed_login_attempts=count(), latest_failed_login=arg_max(TimeGenerated, Account) by Account
| where failed_login_attempts > 5
| project-away Account1
References:
https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/examples

Question #3 *Topic 12*

You are securing access to the resources in an Azure subscription.
A new company policy states that all the Azure virtual machines in the subscription must use managed disks.
You need to prevent users from creating virtual machines that use unmanaged disks.
What should you do?

A. Azure Monitor

B. Azure Policy

C. Azure Security Center

D. Azure Service Health

Correct Answer: *B*

Question #4 *Topic 12*

You have an Azure Kubernetes Service (AKS) cluster that will connect to an Azure Container Registry.
You need to use automatically generated service principal for the AKS cluster to authenticate to the Azure Container Registry.
What should you create?

A. a secret in Azure Key Vault

B. a role assignment

C. an Azure Active Directory (Azure AD) user

D. an Azure Active Directory (Azure AD) group

Correct Answer: *B*
References:
https://docs.microsoft.com/en-us/azure/aks/kubernetes-service-principal

Question #5 *Topic 12*

You are troubleshooting a security issue for an Azure Storage account.
You enable the diagnostic logs for the storage account.
What should you use to retrieve the diagnostics logs?

A. the Security & Compliance admin center

B. SQL query editor in Azure

C. File Explorer in Windows

D. AzCopy

Correct Answer: *D*
References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-analytics-logging?toc=%2fazure%2fstorage%2fblobs%2ftoc.json

Question #6 Topic 12

You have an Azure Storage account named storage1 that has a container named container1.
You need to prevent the blobs in container1 from being modified.
What should you do?

A. From container1, change the access level.

B. From container1, add an access policy.

C. From container1, modify the Access Control (IAM) settings.

D. From storage1, enable soft delete for blobs.

Correct Answer: *B*
References:
https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-immutable-storage?tabs=azure-portal

Question #7 Topic 12

You company has an Azure Active Directory (Azure AD) tenant named contoso.com.
You plan to create several security alerts by using Azure Monitor.
You need to prepare the Azure subscription for the alerts.
What should you create first?

A. An Azure Storage account

B. an Azure Log Analytics workspace

C. an Azure event hub

D. an Azure Automation account

Correct Answer: *B*

Question #8 Topic 12

You company has an Azure subscription named Sub1. Sub1 contains an Azure web app named WebApp1 that uses Azure Application Insights.
WebApp1 requires users to authenticate by using OAuth 2.0 client secrets.
Developers at the company plan to create a multi-step web test app that preforms synthetic transactions emulating user traffic to Web App1.
You need to ensure that web tests can run unattended.
What should you do first?

A. In Microsoft Visual Studio, modify the .webtest file.

B. Upload the .webtest file to Application Insights.

C. Register the web test app in Azure AD.

D. Add a plug-in to the web test app.

Correct Answer: *B*

Question #9 *Topic 12*

You are troubleshooting a security issue for an Azure Storage account.
You enable the diagnostic logs for the storage account.
What should you use to retrieve the diagnostics logs?

A. the Security & Compliance admin center

B. Azure Security Center

C. Azure Cosmos DB explorer

D. AzCopy

Correct Answer: *D*

Question #10 *Topic 12*

You are securing access to the resources in an Azure subscription.
A new company policy states that all the Azure virtual machines in the subscription must use managed disks.
You need to prevent users from creating virtual machines that use unmanaged disks.
What should you do?

A. Azure Monitor

B. Azure Policy

C. Azure Security Center

D. Azure Service Health

Correct Answer: *B*

Question #11 *Topic 12*

You have an Azure Kubernetes Service (AKS) cluster that will connect to an Azure Container Registry.
You need to use automatically generated service principal for the AKS cluster to authenticate to the Azure Container Registry.
What should you create?

A. a secret in Azure Key Vault

B. a role assignment

C. an Azure Active Directory (Azure AD) user

D. an Azure Active Directory (Azure AD) group

Correct Answer: *B*
References:
https://docs.microsoft.com/en-us/azure/aks/kubernetes-service-principal

Question #12 Topic 12

You have an Azure subscription that contains a user named User1 and an Azure Container Registry named ConReg1.
You enable content trust for ContReg1.
You need to ensure that User1 can create trusted images in ContReg1. The solution must use the principle of least privilege.
Which two roles should you assign to User1? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. AcrQuarantineReader

B. Contributor

C. AcrPush

D. AcrImageSigner

E. AcrQuarantineWriter

Correct Answer: *CD*
References:
https://docs.microsoft.com/en-us/azure/container-registry/container-registry-content-trust https://docs.microsoft.com/en-us/azure/container-registry/container-registry-roles
Manage security operations

Question #13 Topic 12

You are troubleshooting a security issue for an Azure Storage account.
You enable the diagnostic logs for the storage account.
What should you use to retrieve the diagnostics logs?

A. the Security & Compliance admin center

B. SQL query editor in Azure

C. File Explorer in Windows

D. AzCopy

Correct Answer: *D*
References:
https://docs.microsoft.com/en-us/azure/storage/common/storage-analytics-logging?toc=%2fazure%2fstorage%2fblobs%2ftoc.json

Question #14 Topic 12

You have an Azure Storage account named storage1 that has a container named container1.
You need to prevent the blobs in container1 from being modified.
What should you do?

A. From container1, change the access level.

B. From container1, add an access policy.

C. From container1, modify the Access Control (IAM) settings.

D. From storage1, enable soft delete for blobs.

Correct Answer: *B*
References:
https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-immutable-storage?tabs=azure-portal

Question #15 Topic 12

You company has an Azure Active Directory (Azure AD) tenant named contoso.com.
You plan to create several security alerts by using Azure Monitor.
You need to prepare the Azure subscription for the alerts.
What should you create first?

A. An Azure Storage account

B. an Azure Log Analytics workspace

C. an Azure event hub

D. an Azure Automation account

Correct Answer: *B*

Question #16 Topic 12

You company has an Azure subscription named Sub1. Sub1 contains an Azure web app named WebApp1 that uses Azure Application Insights.
WebApp1 requires users to authenticate by using OAuth 2.0 client secrets.
Developers at the company plan to create a multi-step web test app that preforms synthetic transactions emulating user traffic to Web App1.
You need to ensure that web tests can run unattended.
What should you do first?

A. In Microsoft Visual Studio, modify the .webtest file.

B. Upload the .webtest file to Application Insights.

C. Register the web test app in Azure AD.

D. Add a plug-in to the web test app.

Correct Answer: *B*

Question #17 Topic 12

You are troubleshooting a security issue for an Azure Storage account.
You enable the diagnostic logs for the storage account.
What should you use to retrieve the diagnostics logs?

A. the Security & Compliance admin center

B. Azure Security Center

C. Azure Cosmos DB explorer

D. AzCopy

Correct Answer: *D*

Question #18 Topic 12

You have a web app named WebApp1.
You create a web application firewall (WAF) policy named WAF1.
You need to protect WebApp1 by using WAF1.
What should you do first?

A. Deploy an Azure Front Door.

B. Add an extension to WebApp1.

C. Deploy Azure Firewall.

Correct Answer: *A*
References:
https://docs.microsoft.com/en-us/azure/frontdoor/quickstart-create-front-door

Question #19 Topic 12

You have an Azure subscription.
You configure the subscription to use a different Azure Active Directory (Azure AD) tenant.
What are two possible effects of the change? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Role assignments at the subscription level are lost.

B. Virtual machine managed identities are lost.

C. Virtual machine disk snapshots are lost.

D. Existing Azure resources are deleted.

Correct Answer: *AB*
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-how-subscriptions-associated-directory

Question #20 Topic 12

You have an Azure subscription that contains virtual machines.
You enable just in time (JIT) VM access to all the virtual machines.
You need to connect to a virtual machine by using Remote Desktop.
What should you do first?

A. From Azure Directory (Azure AD) Privileged Identity Management (PIM), activate the Security administrator user role.

B. From Azure Active Directory (Azure AD) Privileged Identity Management (PIM), activate the Owner role for the virtual machine.

C. From the Azure portal, select the virtual machine, select Connect, and then select Request access.

D. From the Azure portal, select the virtual machine and add the Network Watcher Agent virtual machine extension.

Correct Answer: *C*
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/connect-logon

Question #21 Topic 12

SIMULATION -
You need to configure Azure to allow RDP connections from the Internet to a virtual machine named VM1. The solution must minimize the attack surface of VM1.
To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*
To enable the RDP port in an NSG, follow these steps:
1. Sign in to the Azure portal.
2. In Virtual Machines, select VM1
3. In Settings, select Networking.
4. In Inbound port rules, check whether the port for RDP is set correctly. The following is an example of the configuration:

Priority: 300 -

Name: Port_3389 -

Port(Destination): 3389 -

Protocol: TCP -

Source: Any -

Destinations: Any -

Action: Allow -
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-nsg-problem

Question #22 *Topic 12*

SIMULATION -
You need to add the network interface of a virtual machine named VM1 to an application security group named ASG1.
To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*
1. In the Search resources, services, and docs box at the top of the portal, begin typing the name of a virtual machine, VM1 that has a network interface that you want to add to, or remove from, an application security group.
2. When the name of your VM appears in the search results, select it.
3. Under SETTINGS, select Networking. Select Configure the application security groups, select the application security groups that you want to add the network interface to, or unselect the application security groups that you want to remove the network interface from, and then select Save.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface

Question #23 *Topic 12*

SIMULATION -
You need to ensure that only devices connected to a 131.107.0.0/16 subnet can access data in the rg1lod10598168 Azure Storage account.
To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*
Step 1:
1. In Azure portal go to the storage account you want to secure. Here: rg1lod10598168
2. Click on the settings menu called Firewalls and virtual networks.
3. To deny access by default, choose to allow access from Selected networks. To allow traffic from all networks, choose to allow access from All networks.
4. Click Save to apply your changes.
Step 2:
1. Go to the storage account you want to secure. Here: rg1lod10598168
2. Click on the settings menu called Firewalls and virtual networks.
3. Check that you've selected to allow access from Selected networks.
4. To grant access to a virtual network with a new network rule, under Virtual networks, click Add existing virtual network, select Virtual networks and Subnets options. Enter the 131.107.0.0/16 subnet and then click Add.
Note: When network rules are configured, only applications requesting data over the specified set of networks can access a storage account. You can limit access to your storage account to requests originating from specified IP addresses, IP ranges or from a list of subnets in an Azure Virtual Network (VNet).
Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-network-security

Question #24 *Topic 12*

SIMULATION -

You need to ensure that connections from the Internet to VNET1\subnet0 are allowed only over TCP port 7777. The solution must use only currently deployed resources.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to configure the Network Security Group that is associated with subnet0.

1. In the Azure portal, type Virtual Networks in the search box, select Virtual Networks from the search results then select VNET1. Alternatively, browse to
Virtual Networks in the left navigation pane.
2. In the properties of VNET1, click on Subnets. This will display the subnets in VNET1 and the Network Security Group associated to each subnet. Note the name of the Network Security Group associated to Subnet0.
3. Type Network Security Groups into the search box and select the Network Security Group associated with Subnet0.
4. In the properties of the Network Security Group, click on Inbound Security Rules.
5. Click the Add button to add a new rule.
6. In the Source field, select Service Tag.
7. In the Source Service Tag field, select Internet.
8. Leave the Source port ranges and Destination field as the default values (* and All).
9. In the Destination port ranges field, enter 7777.
10.Change the Protocol to TCP.
11.Leave the Action option as Allow.
12.Change the Priority to 100.
13.Change the Name from the default Port_8080 to something more descriptive such as Allow_TCP_7777_from_Internet. The name cannot contain spaces.
14.Click the Add button to save the new rule.

Question #25 *Topic 12*

SIMULATION -

You need to prevent administrators from performing accidental changes to the Homepage app service plan.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to configure a "˜lock' for the app service plan. A read-only lock ensures that no one can make changes to the app service plan without first deleting the lock.

1. In the Azure portal, type App Service Plans in the search box, select App Service Plans from the search results then select Homepage. Alternatively, browse to App Service Plans in the left navigation pane.
2. In the properties of the app service plan, click on Locks.
3. Click the Add button to add a new lock.
4. Enter a name in the Lock name field. It doesn't matter what name you provide for the exam.
5. For the Lock type, select Read-only.
6. Click OK to save the changes.

Question #26 *Topic 12*

SIMULATION -

You need to ensure that a user named Danny11597200 can sign in to any SQL database on a Microsoft SQL server named web11597200 by using SQL Server
Management Studio (SSMS) and Azure Active Directory (Azure AD) credentials.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to provision an Azure AD Admin for the SQL Server.

1. In the Azure portal, type SQL Server in the search box, select SQL Server from the search results then select the server named web11597200.
Alternatively, browse to SQL Server in the left navigation pane.
2. In the SQL Server properties page, click on Active Directory Admin.
3. Click the Set Admin button.
4. In the Add Admin window, search for and select Danny11597200.
5. Click the Select button to add Danny11597200.
6. Click the Save button to save the changes.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/authentication-aad-configure?tabs=azure-powershell

Question #27 *Topic 12*

SIMULATION -

You need to configure a Microsoft SQL server named Web11597200 only to accept connections from the Subnet0 subnet on the VNET01 virtual network.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to allow access to Azure services and configure a virtual network rule for the SQL Server.

1. In the Azure portal, type SQL Server in the search box, select SQL Server from the search results then select the server named web11597200.
Alternatively, browse to SQL Server in the left navigation pane.
2. In the properties of the SQL Server, click Firewalls and virtual networks.
3. In the Virtual networks section, click on Add existing. This will open the Create/Update virtual network rule window.
4. Give the rule a name such as Allow_VNET01-Subnet0 (it doesn't matter what name you enter for the exam).
5. In the Virtual network box, select VNET01.
6. In the Subnet name box, select Subnet0.
7. Click the OK button to save the rule.
8. Back in the Firewall / Virtual Networks window, set the Allow access to Azure services option to On.

Question #28 Topic 12

SIMULATION -
You need to configure network connectivity between a virtual network named VNET1 and a virtual network named VNET2. The solution must ensure that virtual machines connected to VNET1 can communicate with virtual machines connected to VNET2.
To complete this task, sign in to the Azure portal and modify the Azure resources.

Correct Answer: *See the explanation below.*
You need to configure VNet Peering between the two networks. The questions states, "The solution must ensure that virtual machines connected to VNET1 can communicate with virtual machines connected to VNET2". It doesn't say the VMs on VNET2 should be able to communicate with VMs on VNET1. Therefore, we need to configure the peering to allow just the one-way communication.
1. In the Azure portal, type Virtual Networks in the search box, select Virtual Networks from the search results then select VNET1. Alternatively, browse to
Virtual Networks in the left navigation pane.
2. In the properties of VNET1, click on Peerings.
3. In the Peerings blade, click Add to add a new peering.
4. In the Name of the peering from VNET1 to remote virtual network box, enter a name such as VNET1-VNET2 (this is the name that the peering will be displayed as in VNET1)
5. In the Virtual Network box, select VNET2.
6. In the Name of the peering from remote virtual network to VNET1 box, enter a name such as VNET2-VNET1 (this is the name that the peering will be displayed as in VNET2).
There is an option Allow virtual network access from VNET to remote virtual network. This should be left as Enabled.
7. For the option Allow virtual network access from remote network to VNET1, click the slider button to Disabled.
8. Click the OK button to save the changes.
Reference:
https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering

Question #29 *Topic 12*

SIMULATION -
You need to deploy an Azure firewall to a virtual network named VNET3.
To complete this task, sign in to the Azure portal and modify the Azure resources.
This task might take several minutes to complete. You can perform other tasks while the task completes.

Correct Answer: *See the explanation below.*
To add an Azure firewall to a VNET, the VNET must first be configured with a subnet named AzureFirewallSubnet (if it doesn't already exist).
Configure VNET3.
1. In the Azure portal, type Virtual Networks in the search box, select Virtual Networks from the search results then select VNET3. Alternatively, browse to
Virtual Networks in the left navigation pane.
2. In the Overview section, note the Location (region) and Resource Group of the virtual network. We'll need these when we add the firewall.
3. Click on Subnets.
4. Click on + Subnet to add a new subnet.
5. Enter AzureFirewallSubnet in the Name box. The subnet must be named AzureFirewallSubnet.
6. Enter an appropriate IP range for the subnet in the Address range box.
7. Click the OK button to create the subnet.
Add the Azure Firewall.
1. In the settings of VNET3 click on Firewall.
2. Click the Click here to add a new firewall link.
3. The Resource group will default to the VNET3 resource group. Leave this default.
4. Enter a name for the firewall in the Name box.
5. In the Region box, select the same region as VNET3.
6. In the Public IP address box, select an available public IP address if one exists, or click Add new to add a new public IP address.
7. Click the Review + create button.
8. Review the settings and click the Create button to create the firewall.
Reference:
https://docs.microsoft.com/en-us/azure/firewall/tutorial-firewall-deploy-portal

Question #30 *Topic 12*

You have an Azure virtual machine named VM1.
From Azure Security Center, you get the following high-severity recommendation: "Install endpoint protection solutions on virtual machine".
You need to resolve the issue causing the high-severity recommendation.
What should you do?

A. Add the Microsoft Antimalware extension to VM1.

B. Install Microsoft System Center Security Management Pack for Endpoint Protection on VM1.

C. Add the Network Watcher Agent for Windows extension to VM1.

D. Onboard VM1 to Microsoft Defender Advanced Threat Protection (Microsoft Defender ATP).

Correct Answer: *A*
Reference:
https://docs.microsoft.com/en-us/azure/security-center/security-center-endpoint-protection

Question #31 *Topic 12*

SIMULATION -

You need to ensure that web11597200 is protected from malware by using Microsoft Antimalware for Virtual Machines and is scanned every Friday at 01:00.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to install and configure the Microsoft Antimalware extension on the virtual machine named web11597200.

1. In the Azure portal, type Virtual Machines in the search box, select Virtual Machines from the search results then select web11597200. Alternatively, browse to Virtual Machines in the left navigation pane.
2. In the properties of web11597200, click on Extensions.
3. Click the Add button to add an Extension.
4. Scroll down the list of extensions and select Microsoft Antimalware.
5. Click the Create button. This will open the settings pane for the Microsoft Antimalware Extension.
6. In the Scan day field, select Friday.
7. In the Scan time field, enter 60. The scan time is measured in minutes after midnight so 60 would be 01:00, 120 would be 02:00 etc.
8. Click the OK button to save the configuration and install the extension.

Question #32 *Topic 12*

SIMULATION -

You need to ensure that the events in the NetworkSecurityGroupRuleCounter log of the VNET01-Subnet0-NSG network security group (NSG) are stored in the logs11597200 Azure Storage account for 30 days.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to configure the diagnostic logging for the NetworkSecurityGroupRuleCounter log.

1. In the Azure portal, type Network Security Groups in the search box, select Network Security Groups from the search results then select VNET01-
Subnet0-NSG. Alternatively, browse to Network Security Groups in the left navigation pane.
2. In the properties of the Network Security Group, click on Diagnostic Settings.
3. Click on the Add diagnostic setting link.
4. Provide a name in the Diagnostic settings name field. It doesn't matter what name you provide for the exam.
5. In the Log section, select NetworkSecurityGroupRuleCounter.
6. In the Destination details section, select Archive to a storage account.
7. In the Storage account field, select the logs11597200 storage account.
8. In the Retention (days) field, enter 30.
9. Click the Save button to save the changes.

Question #33 Topic 12

SIMULATION -

A user named Debbie has the Azure app installed on her mobile device.

You need to ensure that debbie@contoso.com is alerted when a resource lock is deleted.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to configure an alert rule in Azure Monitor.

1. Type Monitor into the search box and select Monitor from the search results.
2. Click on Alerts.
3. Click on +New Alert Rule.
4. In the Scope section, click on the Select resource link.
5. In the Filter by resource type box, type locks and select Management locks (locks) from the filtered results.
6. Select the subscription then click the Done button.
7. In the Condition section, click on the Select condition link.
8. Select the Delete management locks condition the click the Done button.
9. In the Action group section, click on the Select action group link.
10.Click the Create action group button to create a new action group.
11.Give the group a name such as Debbie Mobile App (it doesn't matter what name you enter for the exam) then click the Next: Notifications > button.
12.In the Notification type box, select the Email/SMS message/Push/Voice option.
13.In the Email/SMS message/Push/Voice window, tick the Azure app Push Notifications checkbox and enter debbie@contoso.com in the Azure account email field.
14.Click the OK button to close the window.
15.Enter a name such as Debbie Mobile App in the notification name box.
16.Click the Review & Create button then click the Create button to create the action group.
17.Back in the Create alert rule window, in the Alert rule details section, enter a name such as Management lock deletion in the Alert rule name field.
18.Click the Create alert rule button to create the alert rule.

Question #34 Topic 12

SIMULATION -

You need to configure a weekly backup of an Azure SQL database named Homepage. The backup must be retained for eight weeks.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to configure the backup policy for the Azure SQL database.

1. In the Azure portal, type Azure SQL Database in the search box, select Azure SQL Database from the search results then select Homepage. Alternatively, browse to Azure SQL Database in the left navigation pane.
2. Select the server hosting the Homepage database and click on Manage backups.
3. Click on Configure policies.
4. Ensure that the Weekly Backups option is ticked.
5. Configure the How long would you like weekly backups to be retained option to 8 weeks.
6. Click Apply to save the changes.

Question #35 Topic 12

SIMULATION -

You need to ensure that when administrators deploy resources by using an Azure Resource Manager template, the deployment can access secrets in an Azure key vault named KV11597200.

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

You need to configure an option in the Advanced Access Policy of the key vault.

1. In the Azure portal, type Azure Key Vault in the search box, select Azure Key Vault from the search results then select the key vault named KV11597200.

Alternatively, browse to Azure Key Vault in the left navigation pane.

2. In the properties of the key vault, click on Advanced Access Policies.
3. Tick the checkbox labelled Enable access to Azure Resource Manager for template deployment.
4. Click Save to save the changes.

Question #36 Topic 12

SIMULATION -

You need to ensure that connections through an Azure Application Gateway named Homepage-AGW are inspected for malicious requests.

To complete this task, sign in to the Azure portal.

You do not need to wait for the task to complete.

Correct Answer: *See the explanation below.*

You need to enable the Web Application Firewall on the Application Gateway.

1. In the Azure portal, type Application gateways in the search box, select Application gateways from the search results then select the gateway named
Homepage-AGW. Alternatively, browse to Application Gateways in the left navigation pane.
2. In the properties of the application gateway, click on Web application firewall.
3. For the Tier setting, select WAF V2.
4. In the Firewall status section, click the slider to switch to Enabled.
5. In the Firewall mode section, click the slider to switch to Prevention.
6. Click Save to save the changes.

Question #37 Topic 12

SIMULATION -

You need to create a web app named Intranet11597200 and enable users to authenticate to the web app by using Azure Active Directory (Azure AD).

To complete this task, sign in to the Azure portal.

Correct Answer: *See the explanation below.*

1. In the Azure portal, type App services in the search box and select App services from the search results.
2. Click the Create app service button to create a new app service.
3. In the Resource Group section, click the Create new link to create a new resource group.
4. Give the resource group a name such as Intranet11597200RG and click OK.
5. In the Instance Details section, enter Intranet11597200 in the Name field.
6. In the Runtime stack field, select any runtime stack such as .NET Core 3.1.
7. Click the Review + create button.
8. Click the Create button to create the web app.
9. Click the Go to resource button to open the properties of the new web app.
10.In the Settings section, click on Authentication / Authorization.
11.Click the App Service Authentication slider to set it to On.
12.In the Action to take when request is not authentication box, select Log in with Azure Active Directory.
13.Click Save to save the changes.

Question #38 Topic 12

SIMULATION -

You need to enable Advanced Data Security for the SQLdb1 Azure SQL database. The solution must ensure that Azure Advanced Threat Protection (ATP) alerts are sent to User1@contoso.com.

To complete this task, sign in to the Azure portal and modify the Azure resources.

Correct Answer: *See the explanation below.*

1. In the Azure portal, type SQL in the search box, select SQL databases from the search results then select SQLdb1. Alternatively, browse to SQL databases in the left navigation pane.
2. In the properties of SQLdb1, scroll down to the Security section and select Advanced data security.
3. Click on the Settings icon.
4. Tick the Enable Advanced Data Security at the database level checkbox.
5. Click Yes at the confirmation prompt.
6. In the Storage account select a storage account if one isn't selected by default.
7. Under Advanced Threat Protection Settings, enter User1@contoso.com in the Send alerts to box.
8. Click the Save button to save the changes.

Reference:

https://docs.microsoft.com/en-us/azure/azure-sql/database/advanced-data-security

Question #39 *Topic 12*

SIMULATION -

You need to ensure that User2-11641655 has all the key permissions for KeyVault11641655.

To complete this task, sign in to the Azure portal and modify the Azure resources.

Correct Answer: *See the explanation below.*

You need to assign the user the Key Vault Secrets Officer role.

1. In the Azure portal, type Key Vaults in the search box, select Key Vaults from the search results then select KeyVault11641655. Alternatively, browse to Key
Vaults in the left navigation pane.
2. In the key vault properties, select Access control (IAM).
3. In the Add a role assignment section, click the Add button.
4. In the Role box, select the Key Vault Secrets Officer role from the drop-down list.
5. In the Select box, start typing User2-11641655 and select User2-11641655 from the search results.
6. Click the Save button to save the changes.

Question #40 *Topic 12*

You have an Azure web app named WebApp1.

You upload a certificate to WebApp1.

You need to make the certificate accessible to the app code of WebApp1.

What should you do?

A. Add a user-assigned managed identity to WebApp1.

B. Add an app setting to the WebApp1 configuration.

C. Enable system-assigned managed identity for the WebApp1.

D. Configure the TLS/SSL binding for WebApp1.

Correct Answer: *B*

Reference:

https://docs.microsoft.com/en-us/azure/app-service/configure-ssl-certificate-in-code

Question #41 *Topic 12*

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com.

The User administrator role is assigned to a user named Admin1.

An external partner has a Microsoft account that uses the user1@outlook.com sign in.

Admin1 attempts to invite the external partner to sign in to the Azure AD tenant and receives the following error message: "Unable to invite user user1@outlook.com Generic authorization exception."

You need to ensure that Admin1 can invite the external partner to sign in to the Azure AD tenant.

What should you do?

A. From the Roles and administrators blade, assign the Security administrator role to Admin1.

B. From the Organizational relationships blade, add an identity provider.

C. From the Custom domain names blade, add a custom domain.

D. From the Users blade, modify the External collaboration settings.

Correct Answer: *D*

You need to allow guest invitations in the External collaboration settings.

Question #42 *Topic 12*

You have an Azure subscription named Subscription1.
You deploy a Linux virtual machine named VM1 to Subscription1.
You need to monitor the metrics and the logs of VM1.
What should you use?

A. the AzurePerformanceDiagnostics extension

B. Azure HDInsight

C. Linux Diagnostic Extension (LAD) 3.0

D. Azure Analysis Services

Correct Answer: *C*
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/diagnostics-linux

Question #43 *Topic 12*

You onboard Azure Sentinel. You connect Azure Sentinel to Azure Security Center.
You need to automate the mitigation of incidents in Azure Sentinel. The solution must minimize administrative effort.
What should you create?

A. an alert rule

B. a playbook

C. a function app

D. a runbook

Correct Answer: *B*
Reference:
https://docs.microsoft.com/en-us/azure/sentinel/tutorial-respond-threats-playbook

Question #44 *Topic 12*

Your network contains an Active Directory forest named contoso.com. The forest contains a single domain.
You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.
You plan to deploy Azure AD Connect and to integrate Active Directory and the Azure AD tenant.
You need to recommend an integration solution that meets the following requirements:
✑ Ensures that password policies and user logon restrictions apply to user accounts that are synced to the tenant
✑ Minimizes the number of servers required for the solution.
Which authentication method should you include in the recommendation?

A. federated identity with Active Directory Federation Services (AD FS)

B. password hash synchronization with seamless single sign-on (SSO)

C. pass-through authentication with seamless single sign-on (SSO)

Correct Answer: *B*
Password hash synchronization requires the least effort regarding deployment, maintenance, and infrastructure. This level of effort typically applies to organizations that only need their users to sign in to Office 365, SaaS apps, and other Azure AD-based resources. When turned on, password hash synchronization is part of the Azure AD Connect sync process and runs every two minutes.
Incorrect Answers:
A: A federated authentication system relies on an external trusted system to authenticate users. Some companies want to reuse their existing federated system investment with their Azure AD hybrid identity solution. The maintenance and management of the federated system falls outside the control of Azure AD. It's up to the organization by using the federated system to make sure it's deployed securely and can handle the authentication load.
C: For pass-through authentication, you need one or more (we recommend three) lightweight agents installed on existing servers. These agents must have access to your on-premises Active Directory Domain Services, including your on-premises AD domain controllers. They need outbound access to the Internet and access to your domain controllers. For this reason, it's not supported to deploy the agents in a perimeter network.
Pass-through Authentication requires unconstrained network access to domain controllers. All network traffic is encrypted and limited to authentication requests.
References:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-pta

Question #45 *Topic 12*

From Azure Security Center, you enable Azure Container Registry vulnerability scanning of the images in Registry1.
You perform the following actions:
✑ Push a Windows image named Image1 to Registry1.
✑ Push a Linux image named Image2 to Registry1.
✑ Push a Windows image named Image3 to Registry1.
✑ Modify Image1 and push the new image as Image4 to Registry1.
✑ Modify Image2 and push the new image as Image5 to Registry1.
Which two images will be scanned for vulnerabilities? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Image4

B. Image2

C. Image1

D. Image3

E. Image5

Correct Answer: *BE*
Only Linux images are scanned. Windows images are not scanned.
Reference:
https://docs.microsoft.com/en-us/azure/security-center/azure-container-registry-integration
Manage security operations

Question #46 *Topic 12*

You have an Azure Active Directory (Azure AD) tenant named contoso.com.
You need to configure diagnostic settings for contoso.com. The solution must meet the following requirements:
✑ Retain logs for two years.
✑ Query logs by using the Kusto query language.
✑ Minimize administrative effort.
Where should you store the logs?

A. an Azure event hub

B. an Azure Log Analytics workspace

C. an Azure Storage account

Correct Answer: *B*
Secure data and applications

Question #47 Topic 12

Your network contains an Active Directory forest named contoso.com. The forest contains a single domain.
You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.
You plan to deploy Azure AD Connect and to integrate Active Directory and the Azure AD tenant.
You need to recommend an integration solution that meets the following requirements:
✑ Ensures that password policies and user logon restrictions apply to user accounts that are synced to the tenant
✑ Minimizes the number of servers required for the solution.
Which authentication method should you include in the recommendation?

A. federated identity with Active Directory Federation Services (AD FS)

B. password hash synchronization with seamless single sign-on (SSO)

C. pass-through authentication with seamless single sign-on (SSO)

Correct Answer: *B*
Password hash synchronization requires the least effort regarding deployment, maintenance, and infrastructure. This level of effort typically applies to organizations that only need their users to sign in to Office 365, SaaS apps, and other Azure AD-based resources. When turned on, password hash synchronization is part of the Azure AD Connect sync process and runs every two minutes.
Incorrect Answers:
A: A federated authentication system relies on an external trusted system to authenticate users. Some companies want to reuse their existing federated system investment with their Azure AD hybrid identity solution. The maintenance and management of the federated system falls outside the control of Azure AD. It's up to the organization by using the federated system to make sure it's deployed securely and can handle the authentication load.
C: For pass-through authentication, you need one or more (we recommend three) lightweight agents installed on existing servers. These agents must have access to your on-premises Active Directory Domain Services, including your on-premises AD domain controllers. They need outbound access to the Internet and access to your domain controllers. For this reason, it's not supported to deploy the agents in a perimeter network.
Pass-through Authentication requires unconstrained network access to domain controllers. All network traffic is encrypted and limited to authentication requests.
References:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-pta

Question #48 Topic 12

Your network contains an Active Directory forest named contoso.com. The forest contains a single domain.
You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.
You plan to deploy Azure AD Connect and to integrate Active Directory and the Azure AD tenant.
You need to recommend an integration solution that meets the following requirements:
⊶ Ensures that password policies and user logon restrictions apply to user accounts that are synced to the tenant
⊶ Minimizes the number of servers required for the solution.
Which authentication method should you include in the recommendation?

A. federated identity with Active Directory Federation Services (AD FS)

B. password hash synchronization with seamless single sign-on (SSO)

C. pass-through authentication with seamless single sign-on (SSO)

Correct Answer: *B*
Password hash synchronization requires the least effort regarding deployment, maintenance, and infrastructure. This level of effort typically applies to organizations that only need their users to sign in to Office 365, SaaS apps, and other Azure AD-based resources. When turned on, password hash synchronization is part of the Azure AD Connect sync process and runs every two minutes.
Incorrect Answers:
A: A federated authentication system relies on an external trusted system to authenticate users. Some companies want to reuse their existing federated system investment with their Azure AD hybrid identity solution. The maintenance and management of the federated system falls outside the control of Azure AD. It's up to the organization by using the federated system to make sure it's deployed securely and can handle the authentication load.
C: For pass-through authentication, you need one or more (we recommend three) lightweight agents installed on existing servers. These agents must have access to your on-premises Active Directory Domain Services, including your on-premises AD domain controllers. They need outbound access to the Internet and access to your domain controllers. For this reason, it's not supported to deploy the agents in a perimeter network.
Pass-through Authentication requires unconstrained network access to domain controllers. All network traffic is encrypted and limited to authentication requests.
References:
https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-pta

Question #49 Topic 12

You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains a user named User1.
You plan to publish several apps in the tenant.
You need to ensure that User1 can grant admin consent for the published apps.
Which two possible user roles can you assign to User1 to achieve this goal? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Security administrator

B. Cloud application administrator

C. Application administrator

D. User administrator

E. Application developer

Correct Answer: *BC*
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/manage-apps/grant-admin-consent

Question #50 *Topic 12*

You have an Azure subscription named Subcription1 that contains an Azure Active Directory (Azure AD) tenant named contoso.com and a resource group named
RG1.
You create a custom role named Role1 for contoso.com.
You need to identify where you can use Role1 for permission delegation.
What should you identify?

A. contoso.com only

B. contoso.com and RG1 only

C. contoso.com and Subscription1 only

D. contoso.com, RG1, and Subcription1

Correct Answer: *D*

Question #51 *Topic 12*

You have an Azure subscription.
You enable Azure Active Directory (Azure AD) Privileged Identity Management (PIM).
Your company's security policy for administrator accounts has the following conditions:
✑ The accounts must use multi-factor authentication (MFA).
✑ The accounts must use 20-character complex passwords.
✑ The passwords must be changed every 180 days.
✑ The accounts must be managed by using PIM.
You receive multiple alerts about administrators who have not changed their password during the last 90 days.
You need to minimize the number of generated alerts.
Which PIM alert should you modify?

A. Roles are being assigned outside of Privileged Identity Management

B. Roles don't require multi-factor authentication for activation

C. Administrators aren't using their privileged roles

D. Potential stale accounts in a privileged role

Correct Answer: *D*
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-how-to-configure-security-alerts?tabs=new
Implement platform protection

Question #52 Topic 12

You have an Azure Active Directory (Azure AD) tenant named Contoso.com and an Azure Kubernetes Service (AKS) cluster AKS1.
You discover that AKS1 cannot be accessed by using accounts from Contoso.com.
You need to ensure AKS1 can be accessed by using accounts from Contoso.com. The solution must minimize administrative effort.
What should you do first?

A. From Azure recreate AKS1.

B. From AKS1, upgrade the version of Kubernetes.

C. From Azure AD, implement Azure AD Premium.

D. From Azure AD, configure the User settings.

Correct Answer: *A*
Reference:
https://docs.microsoft.com/en-us/azure/aks/azure-ad-integration-cli

Question #53 Topic 12

You have an Azure subscription that contains an Azure Container Registry named Registry1. The subscription uses the Standard use tier of Azure Security
Center.
You upload several container images to Register1.
You discover that vulnerability security scans were not performed.
You need to ensure that the images are scanned for vulnerabilities when they are uploaded to Registry1.
What should you do?

A. From the Azure portal modify the Pricing tier settings.

B. From Azure CLI, lock the container images.

C. Upload the container images by using AzCopy.

D. Push the container images to Registry1 by using Docker

Correct Answer: *A*
Reference:
https://charbelnemnom.com/scan-container-images-in-azure-container-registry-with-azure-security-center/
Manage security operations

Question #54 *Topic 12*

You have an Azure subscription that contains 100 virtual machines and has Azure Security Center Standard tier enabled.
You plan to perform a vulnerability scan of each virtual machine.
You need to deploy the vulnerability scanner extension to the virtual machines by using an Azure Resource Manager template.
Which two values should you specify in the code to automate the deployment of the extension to the virtual machines? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. the user-assigned managed identity

B. the workspace ID

C. the Azure Active Directory (Azure AD) ID

D. the Key Vault managed storage account key

E. the system-assigned managed identity

F. the primary shared key

Correct Answer: *AC*

Question #55 *Topic 12*

You have an Azure subscription that contains a user named Admin1 and a virtual machine named VM1. VM1 runs Windows Server 2019 and was deployed by using an Azure Resource Manager template. VM1 is the member of a backend pool of a public Azure Basic Load Balancer.
Admin1 reports that VM1 is listed as Unsupported on the Just in time VM access blade of Azure Security Center.
You need to ensure that Admin1 can enable just in time (JIT) VM access for VM1.
What should you do?

A. Create and configure a network security group (NSG).

B. Create and configure an additional public IP address for VM1.

C. Replace the Basic Load Balancer with an Azure Standard Load Balancer.

D. Assign an Azure Active Directory Premium Plan 1 license to Admin1.

Correct Answer: *A*
Reference:
https://docs.microsoft.com/en-us/azure/security-center/security-center-just-in-time?tabs=jit-config-asc%2Cjit-request-asc

Question #56

Topic 12

You have an Azure Active Directory (Azure AD) tenant and a root management group.
You create 10 Azure subscriptions and add the subscriptions to the root management group.
You need to create an Azure Blueprints definition that will be stored in the root management group.
What should you do first?

A. Modify the role-based access control (RBAC) role assignments for the root management group.

B. Add an Azure Policy definition to the root management group.

C. Create a user assigned identity.

D. Create a service principal.

Correct Answer: *A*
Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/elevate-access-global-admin

Question #57

Topic 12

You have three on-premises servers named Server1, Server2, and Server3 that run Windows. Server1 and Server2 and located on the Internal network. Server3 is located on the premises network. All servers have access to Azure.
From Azure Sentinel, you install a Windows firewall data connector.
You need to collect Microsoft Defender Firewall data from the servers for Azure Sentinel.
What should you do?

A. Create an event subscription from Server1, Server2 and Server3

B. Install the On-premises data gateway on each server.

C. Install the Microsoft Agent on each server.

D. Install the Microsoft Agent on Server1 and Server2 install the on-premises data gateway on Server3.

Correct Answer: *C*
Reference:
https://docs.microsoft.com/en-us/azure/sentinel/connect-windows-firewall

Question #58

Topic 12

You have an Azure subscription that contains several Azure SQL databases and an Azure Sentinel workspace.
You need to create a saved query in the workspace to find events reported by Advanced Threat Protection for Azure SQL Database.
What should you do?

A. From Azure CLI run the Get-AzOperationalInsightsworkspace cmdlet.

B. From the Azure SQL Database query editor, create a Transact-SQL query.

C. From the Azure Sentinel workspace, create a Kusto Query Language query.

D. From Microsoft SQL Server Management Studio (SSMS), create a Transact-SQL query.

Correct Answer: *C*

Question #59 *Topic 12*

You are collecting events from Azure virtual machines to an Azure Log Analytics workspace.

You plan to create alerts based on the collected events.

You need to identify which Azure services can be used to create the alerts.

Which two services should you identify? Each correct answer presents a complete solution

NOTE: Each correct selection is worth one point.

A. Azure Monitor

B. Azure Security Center

C. Azure Analytics Services

D. Azure Sentinel

E. Azure Advisor

Correct Answer: *AD*

Secure data and applications