QUESTION 45
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 need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy two Azure virtual machines to two Azure regions, and create a Traffic Manager profile.

Does this meet the goal?

A. Yes
B. No

Correct Answer: A
Explanation

Explanation/Reference:

QUESTION 46
HOTSPOT

You plan to deploy a network-intensive application to several Azure virtual machines.

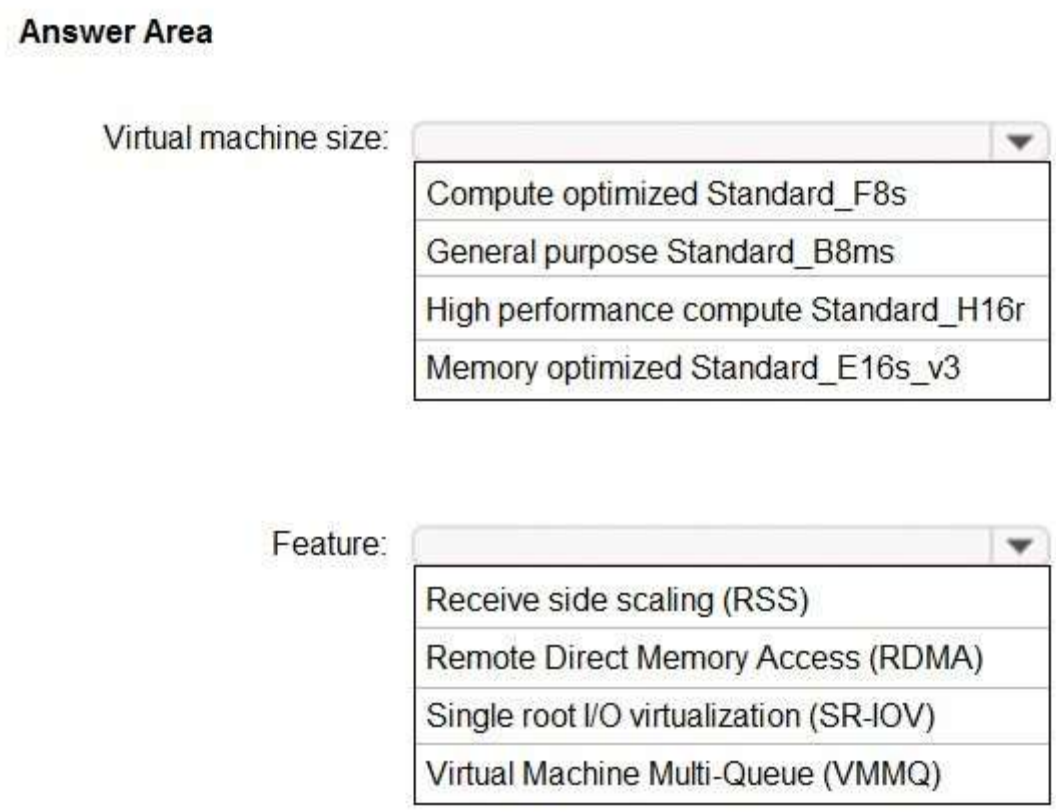
You need to recommend a solution that meets the following requirements:

- Minimizes the use of the virtual machine processors to transfer data
- Minimizes network latency

Which virtual machine size and feature should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Correct Answer:

Answer Area

Virtual machine size:

- Compute optimized Standard_F8s
- General purpose Standard_B8ms
- High performance compute Standard_H16r
- Memory optimized Standard_E16s_v3

Feature:

- Receive side scaling (RSS)
- Remote Direct Memory Access (RDMA)
- Single root I/O virtualization (SR-IOV)
- Virtual Machine Multi-Queue (VMMQ)

Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/sizes-hpc#h-series

QUESTION 47
You need to recommend a solution to deploy containers that run an application. The application has two tiers. Each tier is implemented as a separate Docker Linux-based image. The solution must meet the following requirements:

- The front-end tier must be accessible by using a public IP address on port 80.
- The backend tier must be accessible by using port 8080 from the front-end tier
- only. Both containers must be able to access the same Azure file share.
- If a container fails, the application must restart
- automatically. Costs must be minimized.

What should you recommend using to host the application?

A. Azure Kubernetes Service (AKS)
B. Azure Service Fabric
C. Azure Container instances

Correct Answer: C
Explanation

Explanation/Reference:
Explanation:
Azure Container Instances enables a layered approach to orchestration, providing all of the scheduling and management capabilities required to run a single container, while allowing orchestrator platforms to manage multi-container tasks on top of it.

Because the underlying infrastructure for container instances is managed by Azure, an orchestrator platform does not need to concern itself with finding an appropriate host machine on which to run a single container.

Azure Container Instances can schedule both Windows and Linux containers with the same

API. Orchestration of container instances exclusively
Because they start quickly and bill by the second, an environment based exclusively on Azure Container Instances offers the fastest way to get started and to deal
with highly variable workloads.

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

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

QUESTION 48
You architect a solution that calculates 3D geometry from height-map

data. You have the following requirements:

- Perform calculations in Azure.
- Each node must communicate data to every other node.
- Maximize the number of nodes to calculate multiple scenes as fast as
- possible. Require the least amount of effort to implement.

You need to recommend a solution.

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

NOTE: Each correct selection is worth one point.

A. Create a render farm that uses Azure Batch.
B. Create a render farm that uses virtual machines (VMs).
C. Enable parallel task execution on compute nodes.
D. Create a render farm that uses virtual machine (VM) scale sets.
E. Enable parallel file systems on Azure.

Correct Answer: AC
Explanation

Explanation/Reference:

QUESTION 49
Your company plans to publish APIs for its services by using Azure API

Management. You discover that service responses include the AspNet-Version

header.

You need to recommend a solution to remove AspNet-Version from the response of the published

APIs. What should you include in the recommendation?

A. a new product
B. a modification to the URL scheme
C. a new policy
D. a new revision

Correct Answer: C
Explanation

Explanation/Reference:
Explanation:
Set a new transformation policy to transform an API to strip response headers.

Reference:
https://docs.microsoft.com/en-us/azure/api-management/transform-api

QUESTION 50
You have an Azure subscription that contains a storage account.

An application sometimes writes duplicate files to the storage account.

You have a PowerShell script that identifies and deletes duplicate files in the storage account. Currently, the script is run manually after approval from the operations manager.

You need to recommend a serverless solution that performs the following

- actions: Runs the script once an hour to identify whether duplicate files exist
- Sends an email notification to the operations manager requesting approval to delete the duplicate files
- Processes an email response from the operations manager specifying whether the deletion was approved
- Runs the script if the deletion was approved

What should you include in the recommendation?

A. Azure Logic Apps and Azure Functions
B. Azure Pipelines and Azure Service Fabric
C. Azure Logic Apps and Azure Event Grid
D. Azure Functions and Azure Batch

Correct Answer: A
Explanation

Explanation/Reference:
Explanation:
You can schedule a powershell script with Azure Logic Apps.

When you want to run code that performs a specific job in your logic apps, you can create your own function by using Azure Functions. This service helps you create Node.js, C#, and F# functions so you don't have to build a complete app or infrastructure to run code. You can also call logic apps from inside Azure functions. Azure Functions provides serverless computing in the cloud and is useful for performing tasks such as these examples:

Reference:
https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-azure-functions

QUESTION 51
DRAG DROP

You have an on-premises network that uses an IP address space of

172.16.0.0/16. You plan to deploy 25 virtual machines to a new Azure

subscription.

You identify the following technical requirements:

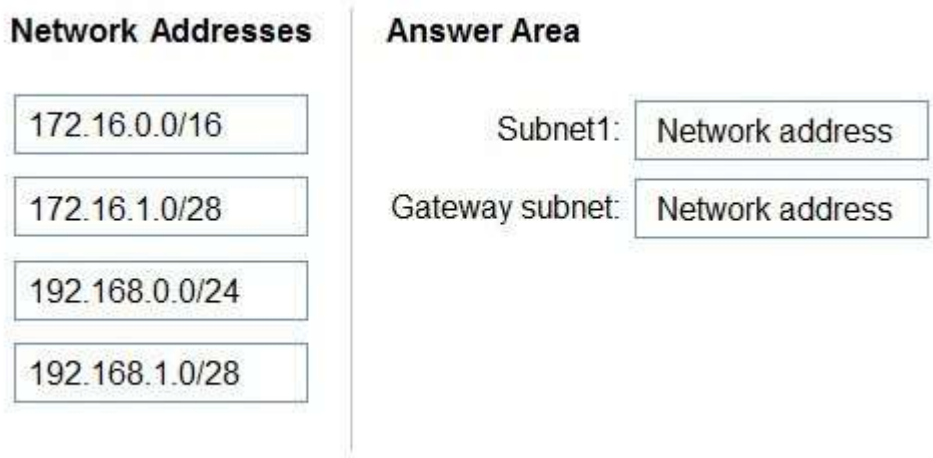
- All Azure virtual machines must be placed on the same subnet named Subnet1.
- All the Azure virtual machines must be able to communicate with all on-premises servers.
- The servers must be able to communicate between the on-premises network and Azure by using a site-to-site

VPN. You need to recommend a subnet design that meets the technical requirements.

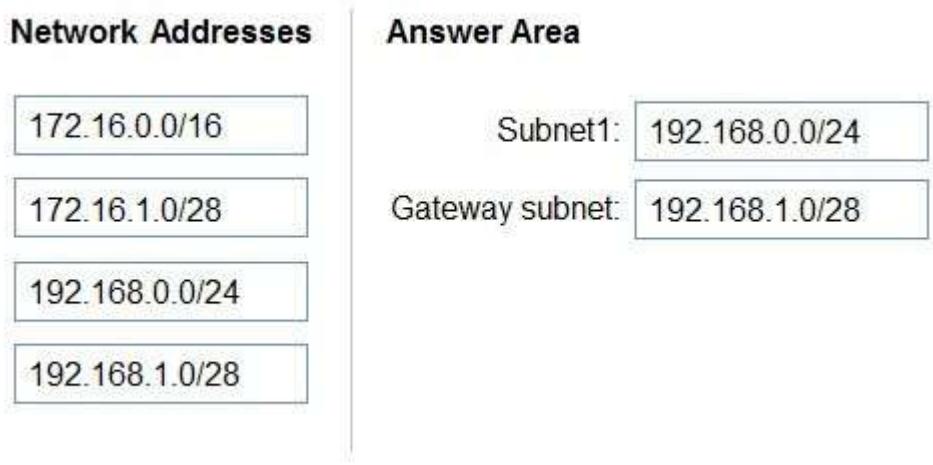
What should you include in the recommendation? To answer, drag the appropriate network addresses to the correct subnets. Each network address may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Correct Answer:



Explanation

Explanation/Referene:

QUESTION 52
You are designing an Azure solution.

The network traffic for the solution must be securely distributed by providing the following

- features: HTTPS protocol
- Round robin
- routing SSL
  offloading

You need to recommend a load balancing

option. What should you recommend?

A. Azure Load Balancer
B. Azure Internal Load Balancer (ILB)
C. Azure Traffic Manager
D. Azure Application Gateway

Correct Answer: D
Explanation

Explanation/Reference:
Explanation:
If you are looking for Transport Layer Security (TLS) protocol termination ("SSL offload") or per-HTTP/HTTPS request, application-layer processing, review Application Gateway.

Application Gateway is a layer 7 load balancer, which means it works only with web traffic (HTTP, HTTPS, WebSocket, and HTTP/2). It supports capabilities such as SSL termination, cookie-based session affinity, and round robin for load-balancing traffic. Load Balancer load-balances traffic at layer 4 (TCP or UDP).

Reference:
https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-faq

QUESTION 53
Your company, named Contoso, Ltd, implements several Azure logic apps that have HTTP triggers: The logic apps provide access to an on-premises web

service. Contoso establishes a partnership with another company named Fabrikam, Inc.

Fabrikam does not have an existing Azure Active Directory (Azure AD) tenant and uses third-party OAuth 2.0 identity management to authenticate its users. Developers at Fabrikam plan to use a subset of the logics apps to build applications that will integrate with the on-premises web service of Contoso.

You need to design a solution to provide the Fabrikam developers with access to the logic apps. The solution must meet the following requirements:

- Requests to the logic apps from the developers must be limited to lower rates than the requests from the users at
- Contoso. The developers must be able to rely on their existing OAuth 2.0 provider to gain access to the logic apps.
- The solution must **NOT** require changes to the logic
- apps. The solution must **NOT** use Azure AD guest accounts.

What should you include in the solution?

A. Azure AD business-to-business (B2B)
B. Azure Front Door
C. Azure API Management
D. Azure AD Application Proxy

Correct Answer: C
Explanation

Explanation/Reference:
Explanation:
API Management helps organizations publish APIs to external, partner, and internal developers to unlock the potential of their data and services.
You can secure API Management using the OAuth 2.0 client credentials flow.

Incorrect Answers:
A: Azure Active Directory B2B uses guest users.

B: Azure Front Door is an Application Delivery Network (ADN) as a service, offering various layer 7 load-balancing capabilities for your applications. Azure Front Door supports HTTP, HTTPS and HTTP/2.
Applications can be authorized through OAuth 2.0.

D: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client. Application Proxy includes both the Application Proxy service which runs in the cloud, and the Application Proxy connector which runs on an on-premises server.

Application Proxy works with:
- Web applications that use Integrated Windows Authentication for
- authentication Web applications that use form-based or header-based access

Reference:
https://docs.microsoft.com/en-us/azure/api-management/api-management-key-concepts

QUESTION 54
You need to design a solution that will execute custom C# code in response to an event routed to Azure Event Grid. The solution must meet the following requirements:

- The executed code must be able to access the private IP address of a Microsoft SQL Server instance that runs on an Azure virtual
- machine. Costs must be minimized.

What should you include in the solution?

A. Azure Logic Apps in the integrated service environment
B. Azure Functions in the Dedicated plan and the Basic Azure App Service plan
C. Azure Logic Apps in the Consumption plan
D. Azure Functions in the Consumption plan

Correct Answer: D
Explanation

Explanation/Reference:
Explanation:
When you create a function app in Azure, you must choose a hosting plan for your app. There are three basic hosting plans available for Azure Functions: Consumption plan, Premium plan, and Dedicated (App Service) plan.
For the Consumption plan, you don't have to pay for idle VMs or reserve capacity in advance.

Connect to private endpoints with Azure Functions
As enterprises continue to adopt serverless (and Platform-as-a-Service, or PaaS) solutions, they often need a way to integrate with existing resources on a virtual network. These existing resources could be databases, file storage, message queues or event streams, or REST APIs.

Reference:
https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale

https://techcommunity.microsoft.com/t5/azure-functions/connect-to-private-endpoints-with-azure-functions/ba-p/1426615

QUESTION 55
The developers at your company are building a containerized Python Django app.

You need to recommend platform to host the app. The solution must meet the following requirements:

- Support autoscaling.
- Support continuous deployment from an Azure Container Registry.

- Provide built-in functionality to authenticate app users by using Azure Active Directory (Azure AD).

Which platform should you include in the recommendation?

A. Azure Container instances
B. an Azure App Service instance that uses containers
C. Azure Kubernetes Service (AKS)

Correct Answer: C
Explanation

Explanation/Reference:
Explanation:
To keep up with application demands in Azure Kubernetes Service (AKS), you may need to adjust the number of nodes that run your workloads. The cluster autoscaler component can watch for pods in your cluster that can't be scheduled because of resource constraints. When issues are detected, the number of nodes in a node pool is increased to meet the application demand.

Azure Container Registry is a private registry for hosting container images. It integrates well with orchestrators like Azure Container Service, including Docker Swarm, DC/OS, and the new Azure Kubernetes service. Moreover, ACR provides capabilities such as Azure Active Directory-based authentication, webhook support, and delete operations.

Reference:
https://docs.microsoft.com/en-us/azure/aks/cluster-autoscaler

https://medium.com/velotio-perspectives/continuous-deployment-with-azure-kubernetes-service-azure-container-registry-jenkins-ca337940151b