AZ-900: foundation worksheet

Eight selected original learning tasks reused from this foundation path. Write answers before opening the separate key. Follow each item selection instruction. This is not an unseen mock, an official examination or a readiness measure.

Independent review status is recorded in the separate bound review evidence. Qualified educator review is pending; learner trial has not run. Difficulty is editorial and uncalibrated.

Questions - separate answer key follows

01. az900-q-001

A fictional Azure training project needs processing capacity for an irregular ten-week campaign. Its requirement is to avoid purchasing hardware sized for the busiest week and to adjust the resources it consumes as demand changes. Which approach directly matches that consumption objective?

A. Buy peak-sized servers before the campaign and retain them afterward

B. Keep a fixed average-demand resource quantity even through peaks

C. Adjust rented resource quantities to the campaign’s actual demand

D. Rent the maximum resource quantity for every campaign week

Your answer: _____ Reasoning notes:

02. az900-q-014

A fictional Azure resource group has metadata Location set to Region A. It contains resources X and Y, whose deployment regions have not been inspected. Which information directly verifies whether X and Y themselves are both deployed in Region A?

A. The resource location properties for X and Y

B. The resource group’s metadata Location value

C. The department tag values attached to X and Y

D. The name of the management group above their subscription

Your answer: _____ Reasoning notes:

Questions - separate answer key follows

03. az900-q-029

For a fictional Azure planning exercise, use this toy cost model only: 50 VM-hours at $0.18 per VM-hour, one fixed storage charge of $4.00, and 2 GB of outbound data at $0.50 per GB. All rates are invented teaching inputs, not Azure prices or a quote. Assume there are no other charges in this toy model. What is the total?

A. $10.00

B. $14.00

C. $23.00

D. $9.32

Your answer: _____ Reasoning notes:

04. az900-q-051

A fictional museum wants better visibility and governance of data across its estate, including a unified catalog and data-map capability. Which Microsoft solution directly matches that data-governance purpose?

A. Use Microsoft Purview Data Map/Unified Catalog for the data estate

B. Review only resource-role assignments to identify permitted actions

C. Review only Defender for Cloud resource security posture recommendations

D. Inventory supported external servers through Arc without a data-asset catalog

Your answer: _____ Reasoning notes:

Questions - separate answer key follows

05. az900-q-005

For a fictional Azure-hosted service, assume two running application copies both stop whenever their shared dependency F is unavailable. Requests can already be routed to either healthy copy. The specific requirement is to keep one copy available when F alone fails. Which proposed change addresses that shared failure boundary in the supplied model?

A. Give both copies more memory while keeping dependency F

B. Put one copy behind an independent dependency that does not fail with F

C. Add a third copy that also requires F

D. Increase backup frequency while leaving both running copies dependent on F

Your answer: _____ Reasoning notes:

06. az900-q-018

A fictional Azure deployment artifact packages an application and its dependencies for isolated execution. Its deployment unit is an application image rather than a complete guest operating-system image. Which concept describes that artifact?

A. A complete virtual-machine guest OS image

B. A container

C. A finished SaaS collaboration application

D. A resource-management template

Your answer: _____ Reasoning notes:

Questions - separate answer key follows

07. az900-q-033

Fictional Azure deployers already have permission to create resources in a subscription. They must retain the ability to create compliant resources, but any new resource whose proposed location is outside an approved list must be rejected during creation, regardless of which authorized deployer submits it. Which change directly enforces that resource-property rule?

A. Add another Contributor role assignment for each deployer

B. Apply a CanNotDelete resource lock to existing resources

C. Create a budget threshold notification for the subscription

D. Assign an allowed-locations deny policy at the deployment scope

Your answer: _____ Reasoning notes:

08. az900-q-010

A fictional language school has written its own general-purpose web application. It needs to deploy that application, while the service provider—not the school—maintains the operating system and web-platform runtime. The application needs no guest-OS customization and is not a Microsoft 365 extension. Which option fits that combination?

A. Azure Virtual Machines with the team administering the guest OS

B. A private on-premises VM with the team administering its stack

C. Microsoft 365 as ready-made hosted collaboration software

D. Azure App Service with a provider-maintained web platform

Your answer: _____ Reasoning notes:

Answer key and original explanations

01. az900-q-001

C. Adjust rented resource quantities to the campaign’s actual demand

1. The requirement concerns how capacity and spending exposure follow demand, not a promised lower lifetime bill.
2. A consumption model permits changing the resources used rather than purchasing all peak capacity up front.
3. A fixed average quantity does not follow peaks; a fixed maximum quantity retains idle-capacity exposure when demand is lower.

Why not A: Purchasing peak hardware retains the up-front ownership and idle-capacity risk the project wants to avoid.

Why not B: The fixed average quantity remains unchanged when the stated irregular demand exceeds it.

Why not D: The fixed maximum quantity stays allocated through lower-demand weeks rather than following consumption needs.

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02. az900-q-014

A. The resource location properties for X and Y

1. A resource group organizes management and lifecycle; it is not a physical datacenter or zone.
2. Azure Resource Manager documentation explicitly permits resources in a group to be located in different regions.
3. Therefore the stated group membership establishes an administrative relationship, while the geographic and zone claims require additional deployment evidence.

Why not B: The group’s Location stores its metadata location and does not by itself prove both resource locations.

Why not C: Department tags describe organizational metadata rather than the resources’ deployment locations.

Why not D: The management-group name is an administrative label, not the location property of either resource.

Answer key and original explanations

03. az900-q-029

B. $14.00

1. Multiply each usage amount by its matching rate: compute is 50 × $0.18 = $9.00; outbound data is 2 × $0.50 = $1.00.
2. The fixed storage charge is $4.00 for the supplied interval; it is not multiplied by the VM-hours.
3. Add the three specified charges once: $9.00 + $4.00 + $1.00 = $14.00.
4. This is only the subtotal of the deliberately complete toy model. Real Azure pricing, billing terms, taxes and omitted services are not inferred from these invented rates.

Why not A: This omits storage: 50 × $0.18 + 2 × $0.50 = $10.00, leaving out the stated $4.00 charge.

Why not C: This counts compute twice: 2 × (50 × $0.18) + $4.00 + 2 × $0.50 = $23.00.

Why not D: This substitutes 24 hours for the supplied 50 VM-hours: 24 × $0.18 + $4.00 + 2 × $0.50 = $9.32.

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04. az900-q-051

A. Use Microsoft Purview Data Map/Unified Catalog for the data estate

1. The requested object is a data estate and the missing outcome is a data map/unified catalog.
2. Purview directly supplies the data-governance/catalog purpose in this comparison.
3. Roles, posture recommendations and external-server inventory are genuine neighboring governance concerns, but their stated outcomes do not establish a map/catalog of data assets. Connector support and metadata coverage still need verification.

Why not B: Resource authorization answers permitted actions; that alone does not catalog and map the data estate.

Why not C: Resource security posture recommendations address a different governance/security responsibility from data discovery/cataloging.

Why not D: External-resource inventory/management does not by itself establish the requested data-asset catalog/map.

Answer key and original explanations

05. az900-q-005

B. Put one copy behind an independent dependency that does not fail with F

1. Both running copies share the same stated failure cause, so copy count alone does not satisfy the requirement.
2. Moving one copy to an explicitly independent dependency leaves a running copy outside F's failure in this simplified model.
3. Memory, more F-dependent copies and recovery copies can serve other purposes, but they do not remove F from both active paths. This is not an Azure SLA claim.

Why not A: Additional memory changes capacity but leaves both active copies dependent on F.

Why not C: A third F-dependent copy is also unavailable in the same stated failure.

Why not D: A backup may aid recovery, but it does not leave an independently available running copy in this model.

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06. az900-q-018

B. A container

1. The decisive condition is an application/dependency package rather than a complete guest operating-system image.
2. Containers provide isolated application execution with packaged dependencies; Azure Container Instances is one supported Azure way to run containers.
3. A VM image includes a guest OS, SaaS supplies finished application functionality, and a management template describes resources rather than being the running application package.

Why not A: The exercise explicitly excludes packaging a complete guest operating system.

Why not C: A finished SaaS application is consumed rather than being the stated team deployment package.

Why not D: A resource template declares infrastructure properties; it is not the isolated application/dependency execution package.

Answer key and original explanations

07. az900-q-033

D. Assign an allowed-locations deny policy at the deployment scope

1. The condition to evaluate is the proposed resource location, not whether the deployer already has an action permission. Authorized deployers must still be able to create compliant resources.
2. Azure Policy can evaluate resource properties against a rule; the official overview gives allowed regions as a governance use case. An appropriately assigned deny policy directly addresses this creation-time location condition.
3. Adding Contributor permission does not impose the location condition. A CanNotDelete lock protects against deletion of existing resources, not the location of a newly created resource.
4. A budget notification reports a cost threshold; it does not by itself reject out-of-list resource locations. This does not claim that every possible Azure Policy effect has the same purpose—only that this specific deny rule matches the requirement.

Why not A: An additional permission assignment does not reject a proposed location; the scenario already grants create permission and needs a property constraint.

Why not B: CanNotDelete prevents deletion of existing resources while permitting reads/modifications; it does not apply the new-resource location rule.

Why not C: A budget threshold notification concerns cost tracking; the requirement is a creation-time location rejection, not a spending alert.

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08. az900-q-010

D. Azure App Service with a provider-maintained web platform

1. The school needs to deploy its own application, so a finished SaaS collaboration application does not meet the hosting task.
2. It also requires the provider to maintain the OS and platform runtime. Azure App Service is a PaaS example that supports this managed-platform relationship.
3. A customer-administered Azure VM retains guest-OS work with the school; moving a VM into Azure does not by itself meet the provider-managed-platform condition.
4. An on-premises VM retains even more of the stack with the organization. The decision follows the stated responsibility boundary, not an assumption that one option is always cheaper.

Why not A: The VM hosts the application but retains guest-OS administration with the school, contradicting the explicit operating-responsibility requirement.

Why not B: The on-premises option leaves the stack with the school rather than transferring platform maintenance to the service provider.

Why not C: The scenario needs to host its own general-purpose web application, not consume a finished collaboration application.

Sources and learning scope

Selected foundations: 64 original practice tasks, 14 lessons, 42 retrieval cards and four standalone guides. Official coverage remains partial; not a full syllabus, official mock or score predictor.

Questions, answer options and explanations are original teaching content. The references support selected concepts; this worksheet does not establish complete official coverage or professional readiness.

Tutorial: Create and manage budgets
https://learn.microsoft.com/en-us/azure/cost-management-billing/costs/tutorial-acm-create-budgets

Describe the consumption-based model
https://learn.microsoft.com/en-us/training/modules/describe-cloud-compute/6-describe-consumption-based-model

Describe the benefits of high availability and scalability in the cloud
https://learn.microsoft.com/en-us/training/modules/describe-benefits-use-cloud-services/2-high-availability-scalability-cloud

Describe the benefits of reliability and predictability in the cloud
https://learn.microsoft.com/en-us/training/modules/describe-benefits-use-cloud-services/3-reliability-predictability-cloud

Shared responsibility in the cloud
https://learn.microsoft.com/en-us/azure/security/fundamentals/shared-responsibility

What is Azure Resource Manager?
https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/overview

Organize your Azure resources effectively
https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-setup-guide/organize-resources

Virtual machines in Azure
https://learn.microsoft.com/en-us/azure/virtual-machines/overview

What is Azure Container Instances?
https://learn.microsoft.com/en-us/azure/container-instances/container-instances-overview

What are ARM templates?
https://learn.microsoft.com/en-us/azure/azure-resource-manager/templates/overview

What is Azure role-based access control (Azure RBAC)?
https://learn.microsoft.com/en-us/azure/role-based-access-control/overview

What is Microsoft Cost Management
https://learn.microsoft.com/en-us/azure/cost-management-billing/costs/overview-cost-management

Lock your Azure resources to protect your infrastructure
https://learn.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources

What is Azure Policy?
https://learn.microsoft.com/en-us/azure/governance/policy/overview

rd-az-arc
https://learn.microsoft.com/en-us/azure/azure-arc/overview

rd-az-purview
https://learn.microsoft.com/en-us/purview/purview

rd-az-defender
https://learn.microsoft.com/en-us/azure/defender-for-cloud/defender-for-cloud-introduction

rd-az-rbac
https://learn.microsoft.com/en-us/azure/role-based-access-control/overview