1. What is the prefix length notation for the subnet mask 255.255.255.224?

* /25
* /26
* /27
* /28

1. How many valid host addresses are available on an IPv4 subnet that is configured with a /26 mask?

* 254
* 190
* 192
* 62
* 64 ?

1. Which subnet mask would be used if 5 host bits are available?

* 255.255.255.0
* 255.255.255.128
* 255.255.255.224​
* 255.255.255.240

1. A network administrator subnets the 192.168.10.0/24 network into subnets with /26 masks. How many equal-sized subnets are created?

* 1
* 2
* 4
* 8
* 16
* 64

1. What subnet mask is represented by the slash notation /20?

* 255.255.255.248
* 255.255.224.0
* 255.255.240.0
* 255.255.255.0
* 255.255.255.192

1. Which statement is true about variable-length subnet masking?

* Each subnet is the same size.
* The size of each subnet may be different, depending on requirements.
* Subnets may only be subnetted one additional time.
* Bits are returned, rather than borrowed, to create additional subnets.

1. Why does a Layer 3 device perform the ANDing process on a destination IP address and subnet mask?

* to identify the broadcast address of the destination network
* to identify the host address of the destination host
* to identify faulty frames
* to identify the network address of the destination network

1. How many usable IP addresses are available on the 192.168.1.0/27 network?

* 256
* 254
* 62
* 30
* 16
* 32

1. Which subnet mask would be used if exactly 4 host bits are available?

* 255.255.255.224
* 255.255.255.128
* 255.255.255.240
* 255.255.255.248

1. Which two parts are components of an IPv4 address? (Choose two.)

* subnet portion
* network portion
* logical portion
* host portion
* physical portion
* broadcast portion

1. If a network device has a mask of /26, how many IP addresses are available for hosts on this network?

|  |  |
| --- | --- |
| * 64 | * 32 |
| * 30 | * 16 |
| * 62 | * 14 |

1. What does the IP address 172.17.4.250/24 represent?

* network address
* multicast address
* host address
* broadcast address

1. If a network device has a mask of /28, how many IP addresses are available for hosts on this network?

|  |  |
| --- | --- |
| * 256 | * 32 |
| * 254 | * 16 |
| * 62 | * 14 |

1. What is the purpose of the subnet mask in conjunction with an IP address?

* to uniquely identify a host on a network
* to identify whether the address is public or private
* to determine the subnet to which the host belongs
* to mask the IP address to outsiders

1. A network administrator is variably subnetting a network. The smallest subnet has a mask of 255.255.255.224. How many usable host addresses will this subnet provide?​

* 2
* 6
* 14
* 30
* 62