Ip subnetting essay sample

Overview:

As part of your assigned readings and material covered in your class lecture, you have learned about IP subnetting including the math involved. For this assignment, you will answer questions relating to IP subnetting.

Resources:

Textbook

Lecture materials and notes

Deliverables

Answer the questions in the following section.

Turn in your responses to your instructor.

Be sure to show your work, meaning your steps to convert binary to decimal, etc.

Questions:

1. How many bits of mask are required to provide 30 host addresses?

2. How many networks will be created using a 255. 255. 0. 0 given a class A IP network (i. e., 10. 0. 0. 0)?

3. What would be the dotted decimal equivalent o the slash notation of /30?

4. What would be the dotted decimal equivalent o the slash notation of /8?

5. What would be the dotted decimal equivalent o the slash notation of /17?

6. What would be the dotted decimal equivalent o the slash notation of /12?

7. Given 9 bits of mask for the host portion, how many host addresses are available?

8. Given 13 bits of mask for the host portion, how many host addresses are available?

9. Given 3 bits of mask for the host portion, how many host addresses are available?

10. Given 8 bits of mask for the network portion, how many subnets are available?

11. Given 4 bits of mask for the network portion, how many subnets are available?

12. Explain the reasoning behind the concept of " subnet zero."

13. For a network address, what does the host portion of the address appear as in binary representation?

14. For a broadcast address, what does the host portion of the address appear as in binary representation?

15. Complete the table below:
IP AddressDotted Decimal Subnet MaskBroadcast Address

8. 2. 6. 5/16

133. 3. 103. 9/25

192. 168. 9. 67/26

4. 3. 222. 9/20

192. 168. 9. 67/26