IP Addressing and Subnetting

1. Identify which class the following addresses belong to?

IP ADDRESS	CLASS
199.10.10.10	c
44.56.78.8	A
167.45.45.34	B
180.34.56.6	B
45.56.7.6	A
01011101.11110000.00001011.10101010	A
10111100. 11101000.00001111.10101010	B
11010111. 10110000.00001011.10101010	c

2. BINARY CONVERSION

a) Convert 55 into binary

110111

b) Convert 1010101 in decimal

85

c) Convert 34 in Hex

22

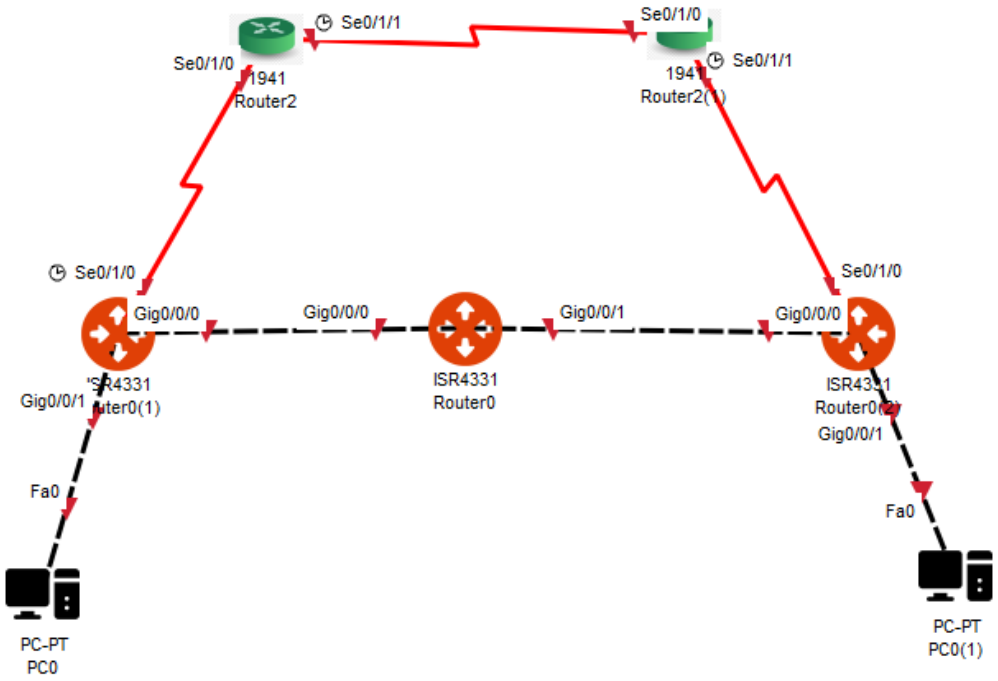
d) Convert A2 in binary

10100010

e) Convert F1 in decimal

f) Convert 10101010 into Hex

3 Work out the number of networks in this topology



4. If I have the following IP address of 200.10.10.0/24 and I want to create 6 networks

Work out the following:

a) What class is this address?

b) How many bits do I need to in order to create 6 networks?

c) What is the new subnet mask?

d) What are the possible addresses for the 6 networks?

5. If I have the following IP address of 215.20.30.0/24 I need to create 25 networks or subnets. Work out the following:

a) What class is this address?

b) How many bits do I need to create 25 subnets?

c) What is the network subnet mask?

d) List 4 network addresses?

6. If I have the following IP address of 136.20.30.0/16 I need to create 75 networks or subnets. Work out the following:

a) What class is this address?

b) How many bits do I need to create 75 subnets?

c) What is the network subnet mask?

d) List 5 network addresses?