Problem 11

223.1.17.0/25
223.1.17.128/26
223.1.17.192/26

(1) 125 interfaces
223.1.0010001.00000000
223.1.0010001.0????????

2^7=128>125, so we should leave at most 7 bits for subnet 1. Subnet part will be 32-7=25 bits. So, 223.1.17.0/25.

(2) 60 interfaces
223.1.0010001.00000000
223.1.0010001.10???????

2^6=64>60, so we should leave at most 6 bits for subnet 1. Subnet part will be 32-6=26 bits. So, 223.1.17.128/26.

(3) 60 interfaces
223.1.0010001.00000000
223.1.0010001.11???????

2^6=64>60, so we should leave at most 6 bits for subnet 1. Subnet part will be 32-6=26 bits. So, 223.1.17.192/26
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