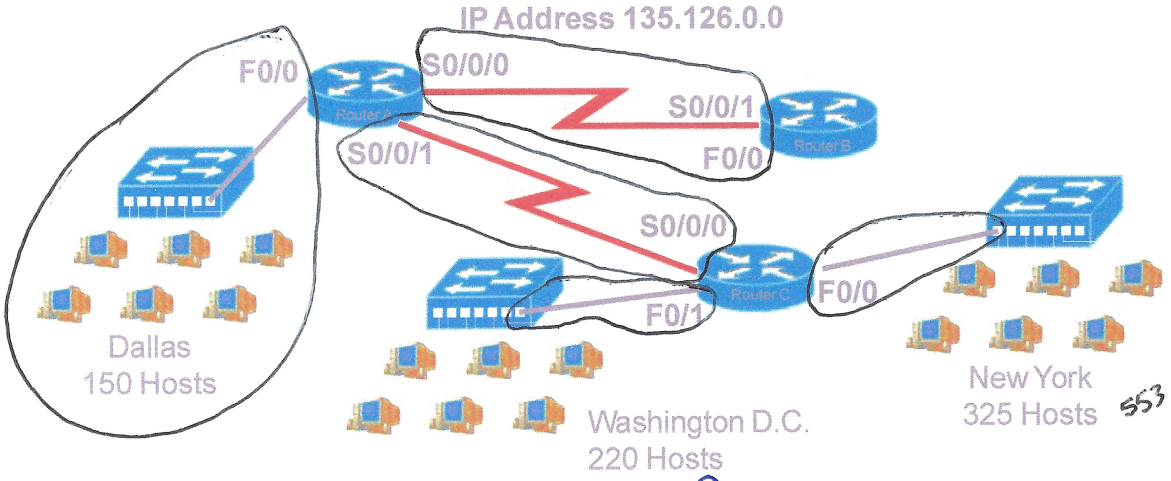
Practical Subnetting 4

Based on the information in the graphic shown, design a network addressing scheme that will supply the **minimum number of subnets**, and allow enough extra subnets and hosts for 70% growth in all areas. Circle each subnet on the graphic and answer the questions below.



Address class B

Custom subnet mask 255.255.240.0

Minimum number of subnets needed 5

Extra subnets required for 70% growth + 4
(Round up to the next whole number)

Total number of subnets needed = 9

Number of host addresses in the largest subnet group 325

Number of addresses needed for 70% growth in the largest subnet + 228
(Round up to the next whole number)

Total number of address needed for the largest subnet = 553

Start with the first subnet and arrange your sub-networks from the largest group to the smallest.

IP address range for New York 135.126.0.0 to 135.126.15.255

IP address range for Washington D. C. 135.126.16.0 to 135.126.31.255

IP address range for Dallas 135.126.32.0 to 135.126.47.255

IP address range for Router A to Router B serial connection 135.126.48.0 to 135.126.63.255

IP address range for Router A to Router C serial connection 135.126.64.0 to 135.126.79.255