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COSC 370-750

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Homework #4

5a

1110000 01010101 00011100 11011101 (Interface 2)
1110001 01000100 10001010 10110010 (Interface 2)
1110001 11100110 10011101 00101100 (Interface 3)
1110000 11100101 01100100 10011101 (Interface 3)
1110001 00011101 00111101 11100110 (Interface 0)

5b

Checks for the largest prefix (11) and digits after the largest prefix and determines which interface it forwards in to:

11001000 10010001 01010001 01010101 (Interface 3)
11100001 01000000 11000011 00111100 (Interface 2)
11100001 10000000 00010001 01110111 (Interface 3)

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Interface 0:

00000000

through

00111111

Interface 1:

01000000

through

01011111

Interface 2:

01100000

through

10111111

Interface 3:

11000000

through

11111111

14

4 fragments are generated

For each fragment in order:

Length: 700 ID: 422 FragFlag: 1 Offset: 0

Length: 700 ID: 422 FragFlag: 1 Offset: 85

Length: 700 ID: 422 FragFlag: 1 Offset: 170

Length: 300 ID: 422 FragFlag: 0 Offset: 255