

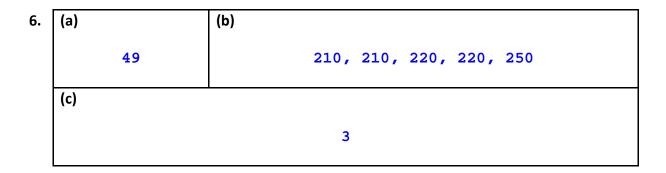
| 3. | (a) | | (b) | (c) |
|----|-----|-------------------|-----------------------|---------------------|
| | | Yes | 300 Kbps | 2 * d * r |
| | | | | |
| | (d) | | | |
| | | (1-p) + p * (1-p) | $(p) + p^2 * (1-p) +$ | $+ p^{k-1} * (1-p)$ |
| | | | | |
| | | | $= 1 - p^k$ | |
| | | | | |

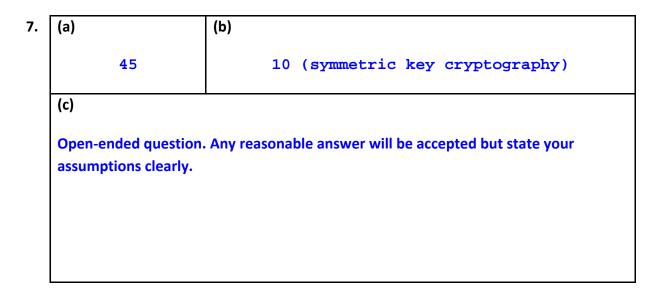
| 4. | (a) | | (b) | |
|----|-----|--------------|----------------|-----|
| | | 137.132.85.2 | 192.33.4. | 12 |
| | (c) | 192.31.80.30 | (d) 54.191.243 | L.8 |
| | (e) | duke.edu | (f) 53 | |

5.

| Interface | IP Range | No. of IP |
|-----------|--|-----------|
| 3 | 1100 0000 - 1100 1111 1110 0000 - 1111 1111 | 32+16=48 |
| 4 | 1010 0000 - 1011 1111 | 32 |
| 1 | 1000 0000 - 1001 1111 | 32 |
| 2 | 1101 0000 - 1101 1111 | 16 |

| 0 0000 0000 - 0111 1111 128 |
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Please DO NOT upload questions and answers onto the Internet.