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COSC370

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Lab 6

1. 192.168.1.48
2. ICMP 0x01
3. a) Header: 20 bytes

b) Body: 36 bytes

c) Total: 56 bytes

1. The data in the packet is not fragmented as the fragmented bit is zero
2. ID, time to live, and checksum change for each distinct packet
3. a) Stay Constant: Version, header length, SourceIP, DestIP

b) Must Stay Constant: Version, header length, SourceIP, DestIP

c) ID, time to live, checksum

1. The header ID increments following every ping
2. ID: 30656 TTL: 64
3. ID changes each hop to maintain unique number, TTL is unchanged
4. Yes
5. The datagram has been fragmented and this is the first fragment as offset is zero the length of the datagram is 1500 bytes
6. The more fragment flag is zero meaning it is the last segment of the datagram offset is 1480
7. Total length, offset, and checksum
8. 3 fragments were created
9. Fragment offset and checksum changes for each fragment; total length changes between the first two fragments, and more fragments flag changes for last fragment