Midterm review
Protocols and layers

| 5 | Application |
| 4 | Transport   |
| 3 | Network     |
| 2 | Link        |
| 1 | Physical    |

What is the function of each layer?  
Example protocols in each?  
What are the (dis)advantages of layering?
Transport layer

1. What abstractions are provided by UDP and TCP?
2. What the key elements of TCP flow control?
3. What is a key property of AIMD control?
4. How does TCP figure out the right window size?
Network layer

• How do we circumvent address space exhaustion in the Internet?
• How does traceroute work?
• Name some techniques used to scale routing
Routing

• What problems are distance vector and link state routing solving?
  • Do they compute identical paths?
  • What are the key differences between the two?
• How does BGP differ from shortest-path routing?
• How is policy expressed in BGP?
• What is ECMP and how is it implemented?