

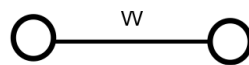
Network Layer (III)

Routing

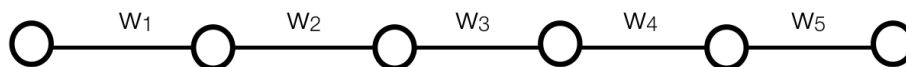
- Finding a good path from source to destination
 - topology discovery
 - route selection
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Link Weights

- What is a good measure of “weight” of a link?



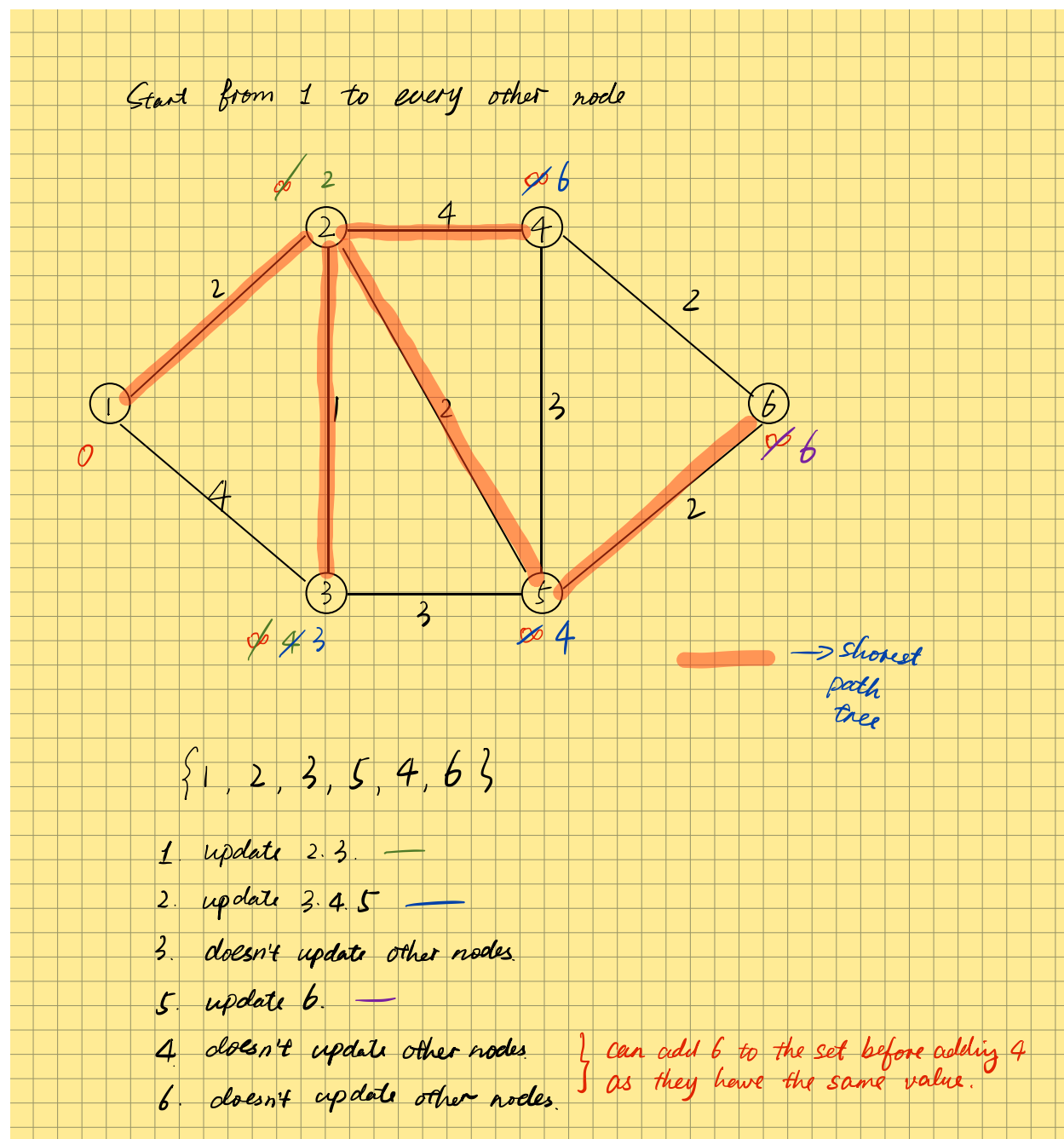
- Link measures:
 - Throughput / bit rate
 - Latency
 - Loss probability
- Weight of a path?



- Path measures:
 - Sum
 - Latency
 - Min/Max
 - Throughput / bit rate
 - Product
 - Loss probability
-

Routing Protocols - Categories

- Link State
 - net topology, link costs known to all nodes
 - accomplished via “link state broadcast”
 - all nodes have same info
 - shortest paths calculated and used to populate the routing tables
 - Dijkstra’s algorithm: compute the shortest path from one node to all other nodes
 - It picks the unvisited vertex with the lowest distance, calculates the distance through it to each unlisted neighbor, and updates the neighbor’s distance if smaller.



Disclaimer: Notes adapted from the textbook and online resources.