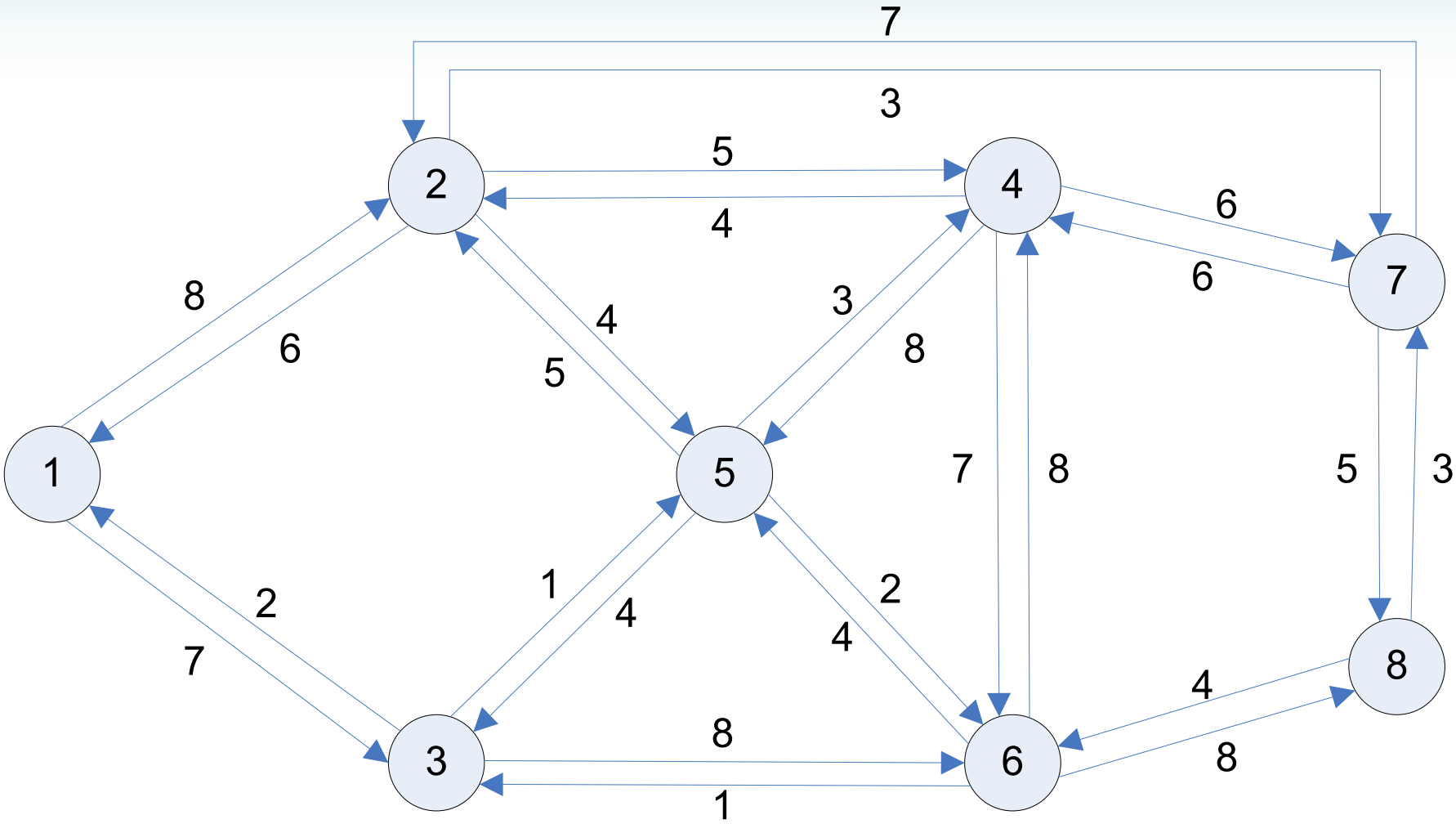
Flooding Example

Internet Technologies and Applications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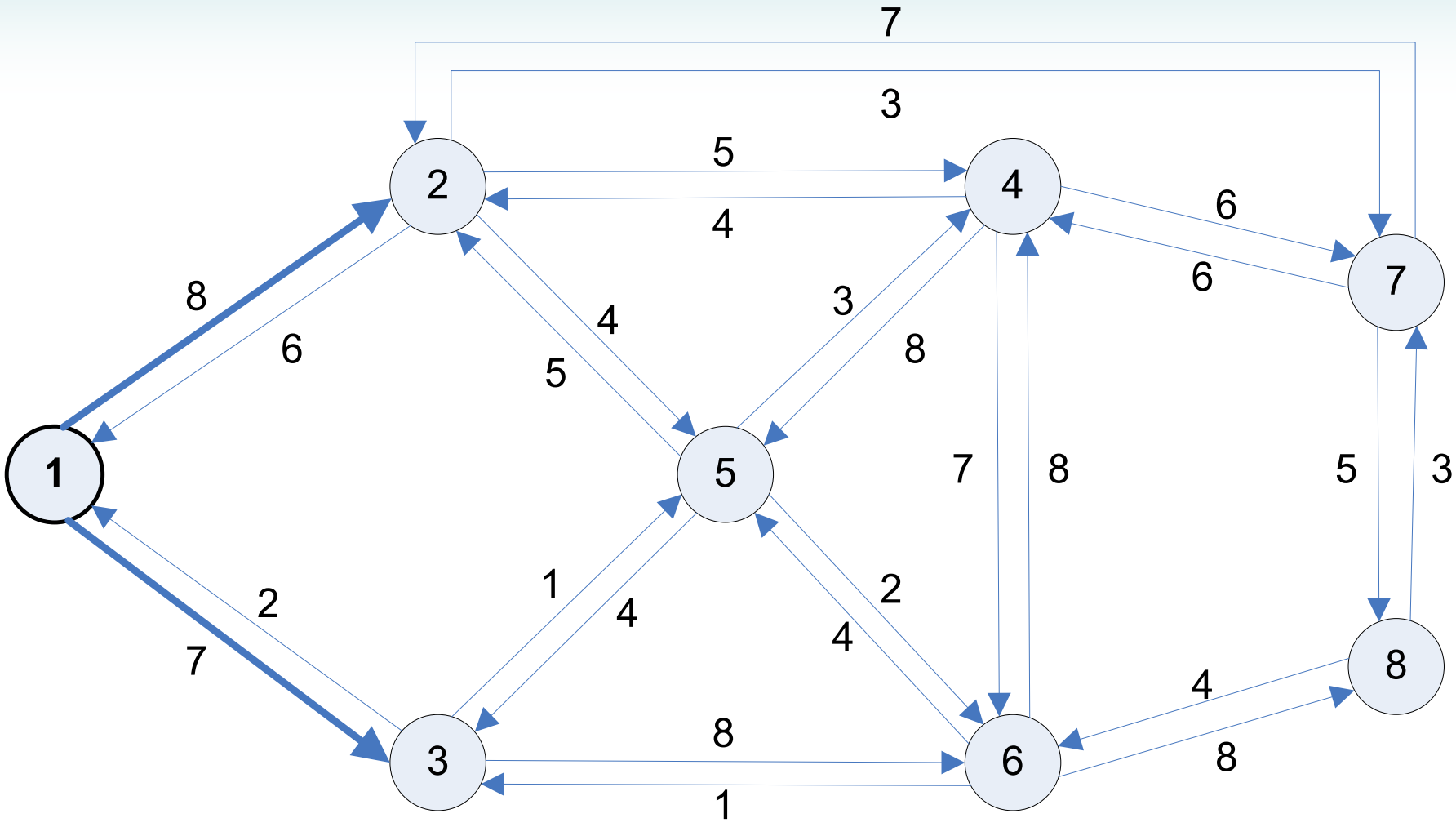
Flooding

- Lets assume:
  - Each packet has a unique identifier. A copy of a packet uses the same identifier as the original.
  - If a node receives a packet that it has previously transmitted, then the node does not retransmit the copy. (That is, each node will only send a packet on each output link once).
  - There is no hop count used.
  - A node does not send a copy of the packet to a node that it has already received the packet from.
  - The cost of transmitting a packet is equivalent to the link cost. For example, if a packet is transmitted on a link with cost 5, then the packet incurs a cost of 5.
  - Transmissions occur in phases (or steps), similar to the example given in the lecture. Node 1 transmits in step 1. Then in step 2, the nodes the received from node 1 transmit at the same time.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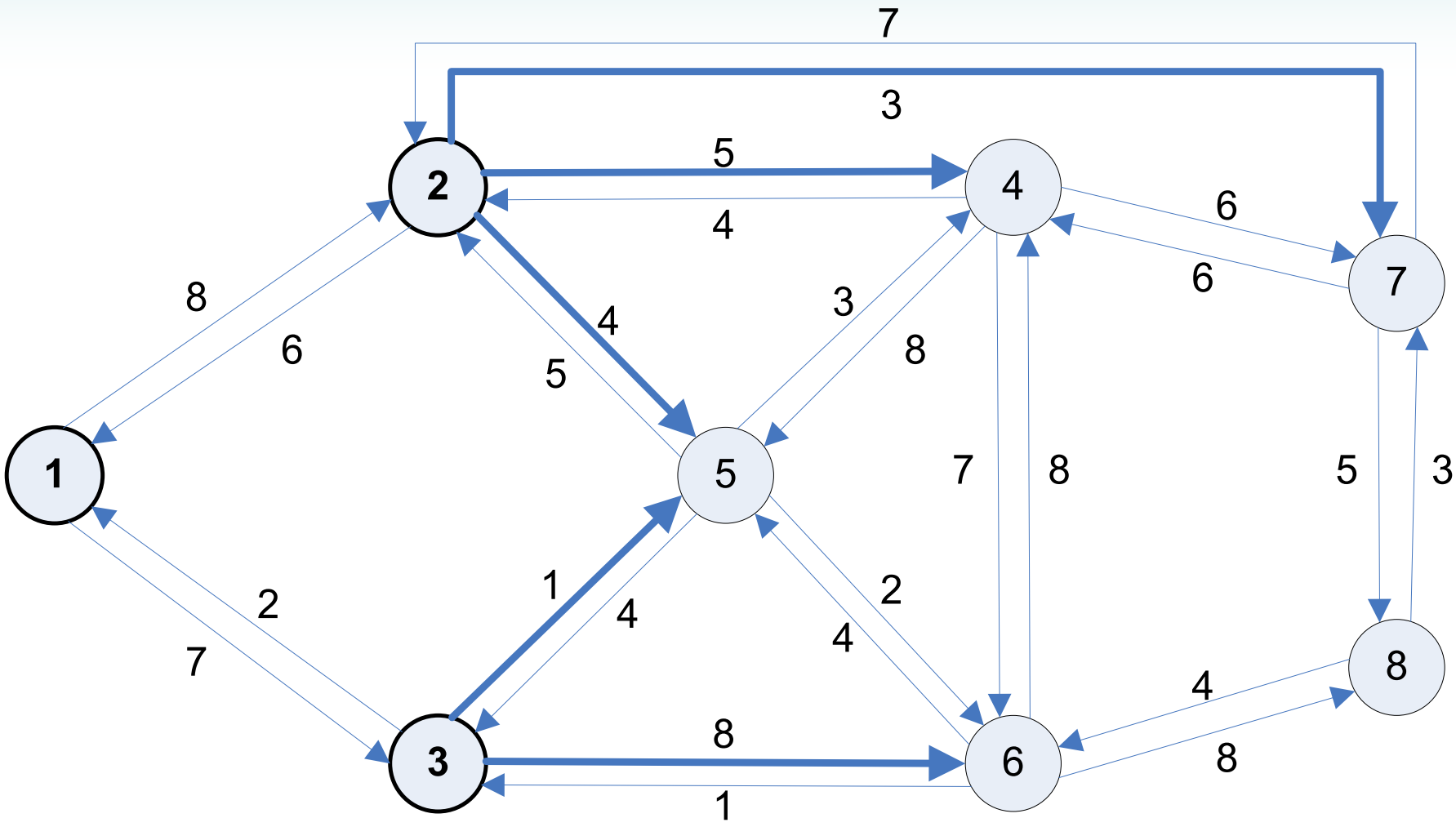
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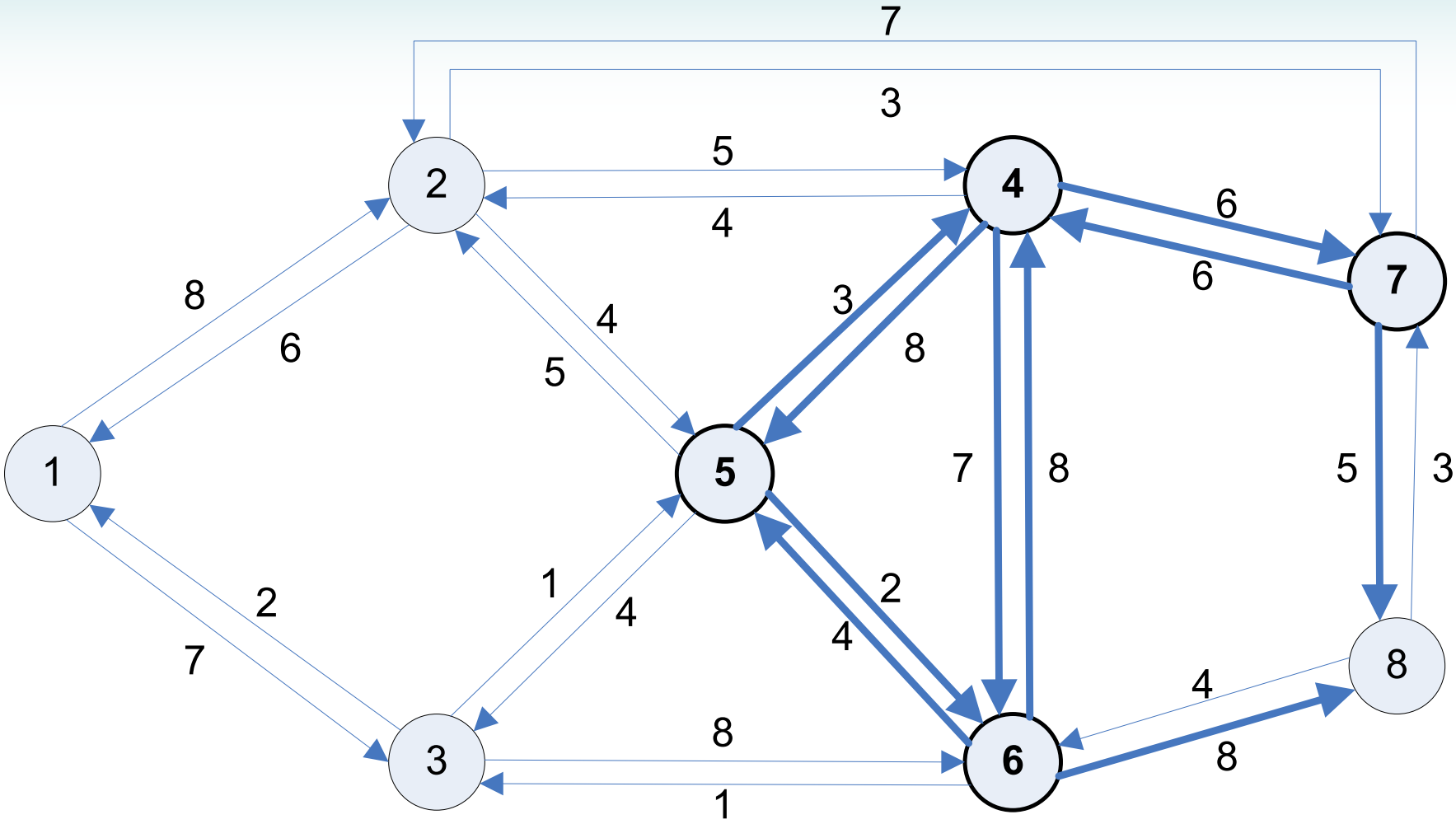
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Cost of Flooding

- Total cost using flooding is 93 units
  - Compared to 16 if shortest path routing was used
    - But adaptive routing involves a cost of nodes exchanging routing information