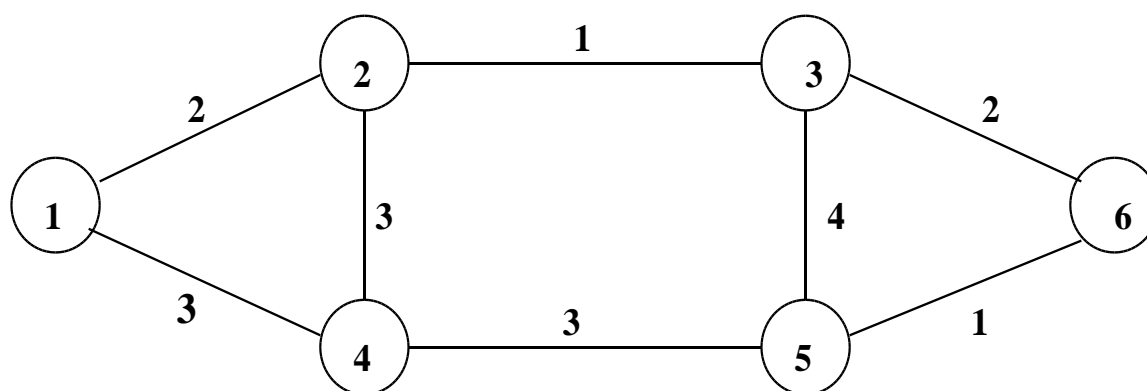


1. Find the shortest paths from each node to Node 1 in the network below using the Distributed Bellman-Ford algorithm in three cases:
  - (a) Assume Node 1 was down and now comes up. Find optimal routes.
  - (b) Assuming optimal routes are known, what happens when Node 1 goes down.
  - (c) Assuming optimal routes are known, what happens when Link (1,2) goes down.



2. Do the “show that”s in the “Essentials of Probability” class notes.