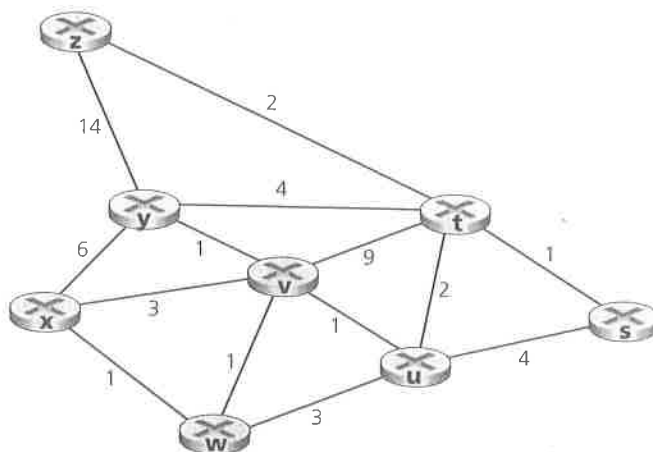
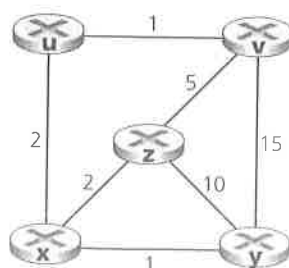


- ✓ 21. Consider the following network. With the indicated link costs, use Dijkstra's shortest-path algorithm to compute the shortest path from  $x$  to all network nodes. Show how the algorithm works by computing a table similar to Table 4.3.



- ✓ 22. Consider the network shown in Problem 21. Using Dijkstra's algorithm, and showing your work using a table similar to Table 4.3, do the following.
- Compute the shortest path from  $s$  to all network nodes.
  - Compute the shortest path from  $t$  to all network nodes.
  - Compute the shortest path from  $u$  to all network nodes.
  - Compute the shortest path from  $v$  to all network nodes.
  - Compute the shortest path from  $w$  to all network nodes.
  - Compute the shortest path from  $y$  to all network nodes.
  - Compute the shortest path from  $z$  to all network nodes.
- ✓ 23. Consider the network shown below, and assume that each node initially knows the costs to each of its neighbors. Consider the distance vector algorithm and show the distance table entries at node  $z$ .



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