Dijkstra from node 4.

Visit 4:-1:-1

Find: 2:15, 3:3, 5:6, 6:8
Visited: 4:-1:-1
Queue: 2:15:4, 3:3:4, 5:6:4, 6:8:4

Visit 3:3:4

Find: 1:12, 6:7
Visited: 3:3:4, 4:-1:-1
Queue: 1:12:3, 2:15:4, 5:6:4, 6:7:3

Visit 5:6:4

Find: 2:8, 7:14
Visited: 3:3:4, 4:-1:-1, 5:6:4
Queue: 1:12:3, 2:8:5, 6:7:3, 7:14:5

Visit 6:7:3

Find: 7:24
Visited: 3:3:4, 4:-1:-1, 5:6:4, 6:7:3
Queue: 1:12:3, 2:8:5, 7:14:5

Visit 2:8:5

Find: 1:15
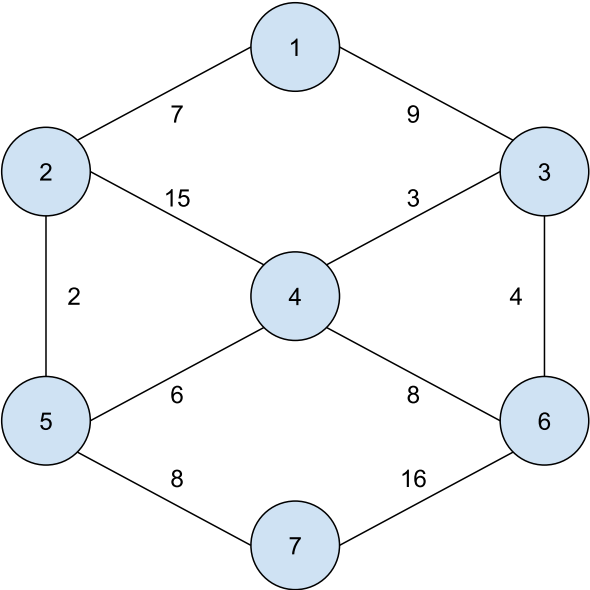Visited: 2:8:5, 3:3:4, 4:-1:-1, 5:6:4, 6:7:3
Queue: 1:12:3, 7:14:5

Visits to 1:12:3 and 7:14:5 find nothing

Final: 1:12:3, 2:8:5, 3:3:4, 4:-1:-1, 5:6:4, 6:7:3, 7:14:5


```
7
4
10
1 2 7
1 3 9
2 4 15
2 5 2
3 4 3
3 6 4
4 5 6
4 6 8
5 7 8
6 7 16
```

```
7
1 12 3
2 8 5
3 3 4
4 -1 -1
5 6 4
6 7 3
7 14 5
```

Dijkstra from node 5.

Visit 5:-1:-1

Find: 2:2, 4:6, 7:8
Visited: 5:-1:-1
Queue: 2:2:5, 4:6:5, 7:8:5

Visit 2:2:5

Find: 1:9, 4:17
Visited: 2:2:5, 5:-1:-1
Queue: 1:9:2, 4:6:5, 7:8:5

Visit 4:6:5

Find: 3:9, 6:14
Visited: 2:2:5, 4:6:5, 5:-1:-1
Queue: 1:9:2, 3:9:4, 6:14:4, 7:8:5

Visit 7:8:5

Find: 6:24
Visited: 2:2:5, 4:6:5, 5:-1:-1, 7:8:5
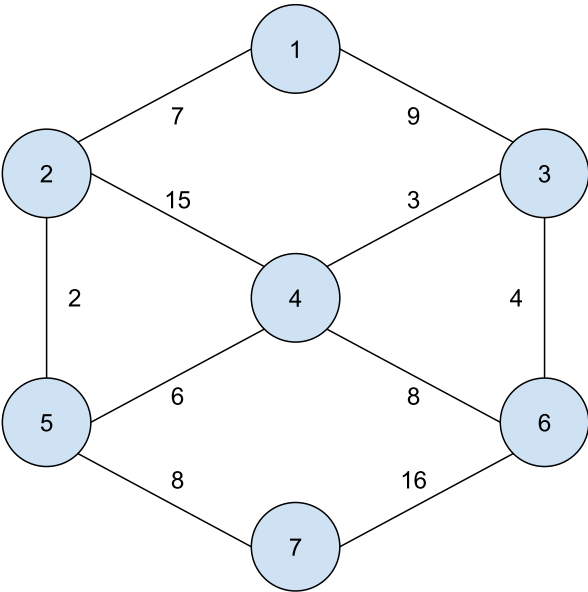Queue: 1:9:2, 3:9:4, 6:14:4

Visit 1:9:2

Find: 3:18
Visited: 1:9:2, 2:2:5, 4:6:5, 5:-1:-1, 7:8:5
Queue: 3:9:4, 6:14:4

Visit 3:9:4

Find: 6:13
Visited: 1:9:2, 2:2:5, 3:9:4, 4:6:5, 5:-1:-1, 7:8:5
Queue: 6:13:3

Visit to 6:13:3 finds nothing
Final: 1:9:2, 2:2:5, 3:9:4, 4:6:5, 5:-1:-1, 6:13:3, 7:8:5

7
5
10
1 2 7
1 3 9
2 4 15
2 5 2
3 4 3
3 6 4
4 5 6
4 6 8
5 7 8
6 7 16

7
1 9 2
2 2 5
3 9 4
4 6 5
5 -1 -1
6 13 3
7 8 5