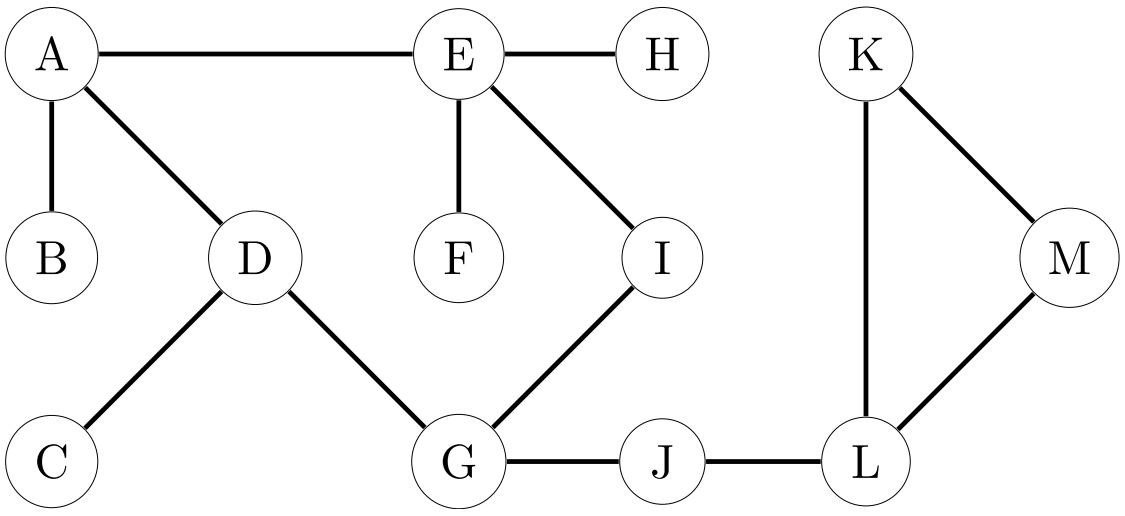
Breadth-first search → Applying BFS

231 users solved this problem. Latest completion was 1 day ago.

Hard 10 minutes

Below is an undirected graph:



Apply the BFS procedure for the graph using I as a starting node. As an answer, print edges of the resulting spanning tree. Edges' order does not matter. The last line of your answer should contain the shortest distance from I to every node of a graph (nodes are sorted in alphabetical order, the shortest distance from I to I is 0).

Below is an example that clarifies the expected output format:

```
A B
B C
C D
0 1 2 3
```

Here, the first three lines correspond to three edges of a spanning tree (an edge from A to B, an edge from B to C and an edge from C to D), while the last line corresponds to the shortest distance from the starting node to every node of a graph. The starting node is A, the shortest distance from A to A is 0, from A to B – 1, from A to C – 2, from A to D – 3.

Report a typo

Enter a short text

```
I E
I G
E A
E H
E F
G J
G D
A B
D C
J L
L K
```

✓ Correct.

26 users liked this problem. **12** didn't like it. **What about you?**

Continue

Comments (3) Hints (5) Useful links (2) Show discussion