Planet Distance
         Round c
Kick Start 2018

Solution

Main idea Express the graph using a
     vector < verctor<int>> graph.
  graph[i] represent the nodes connected with node i.

  Find the circle.
  Use BFS to calculate the distance.

In detail

Find nodes of degree 1.
Set the degree of these nodes to 0.
For each node of degree 1,
    For each node connected with it,
        set the degree to degree -1
repeat, until there are no nodes of degree 1.

    For nodes with degree 2,
    they form a circle.
    Their distance is 0.
    Put these nodes to a vector<int> bfs.

    For each node in bfs, find the nodes connected with
it. If that node does not have a distance yet, set the distance
to be the distance of ✓ +1.
    Repeat until every node has a distance.

Code: ipad-4.cpp