Problem

Consider the undirected graph G=(V,E) where V , the set of nodes, is {1, 2, 3, 4} and E, the set of edges, is {{1, 2}, {2, 3}, {1, 3}, {2, 4}, {1, 4}}. Draw the graph G. What are the degrees of each node? Indicate a path from node 3 to node 4 on your drawing of G.

Step-by-step solution

Step 1 of 2

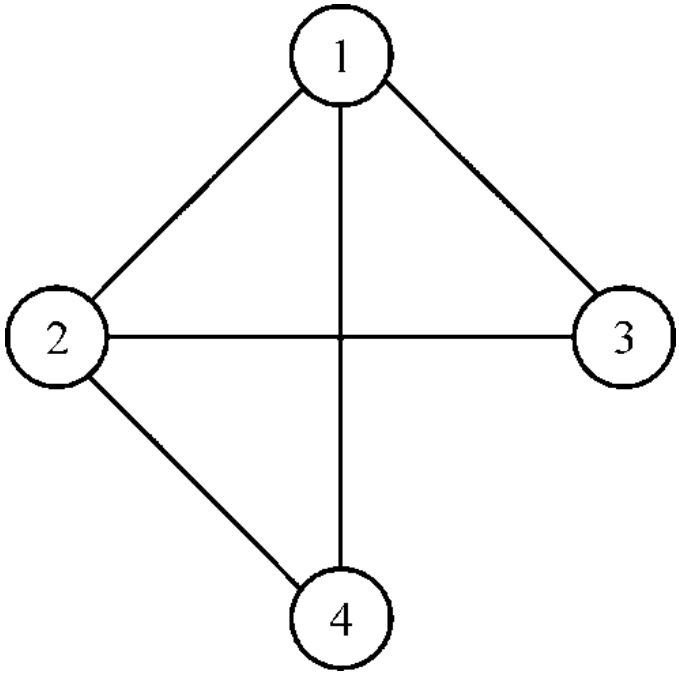
An undirected graph is a set of vertices (nodes) and edges where an edge connects a pair of vertices and it has no orientation.

Consider the undirected graph $G=(V,E)$

Where, *V* is the set of nodes, $\{1,2,3,4\}$

And, *E* is the set of edges, $\{\{1,2\},\{2,3\},\{1,3\},\{2,4\},\{1,4\}\}$.

The graph *G* is as shown below:



Degree of nodes:

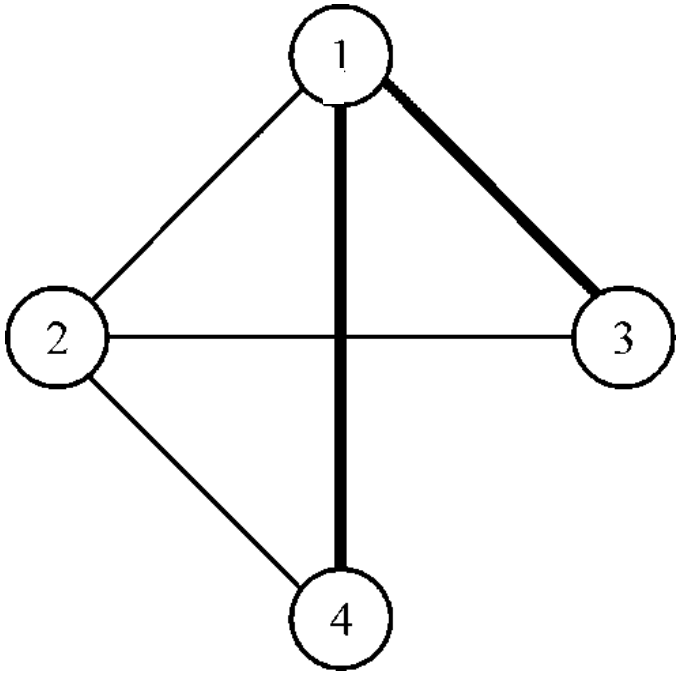
The degree of a node is the number of edges at that particular node. The degrees of each node of graph *G* are as shown in the table below:

Node	Degree
1	3
2	3
3	2
4	2

Comment

Path from node 3 to node 4:

The path from node 3 to node 4 on the graph *G* is as shown below:



Comment