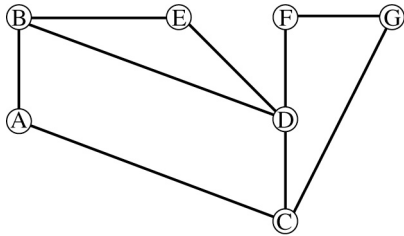


Finding an Euler Path

To find an Euler path for the graph below:



Vertices B and C are the only two of odd degree; therefore an Euler path must start and end at these vertices.

Add a dummy edge BC to join these two vertices. We can now create an Euler circuit. Use the Euler circuit algorithm *starting* with this dummy edge.

The first sub-circuit (1) is C-B-A-C (using the dummy edge from B to C)

A second sub-circuit (2) is B-E-D-B

A third sub-circuit (3) is D-F-G-C-D

All edges in the graph are now included in one of these sub-circuits, so we connect them to form an Euler circuit.

Connect sub-circuit (2) to (1) at vertex B

C-[B-E-D-B]-A-C

Connect sub-circuit (3) at vertex D

C-[B-E-[D-F-G-C-D]-B]-A-C

Remove the dummy edge at the start. This leaves a Euler path from B to C:-

B-E-D-F-G-C-D-B-A-C

Check: the number of edges in the graph (9) is one less than the number of vertices in the path (10).