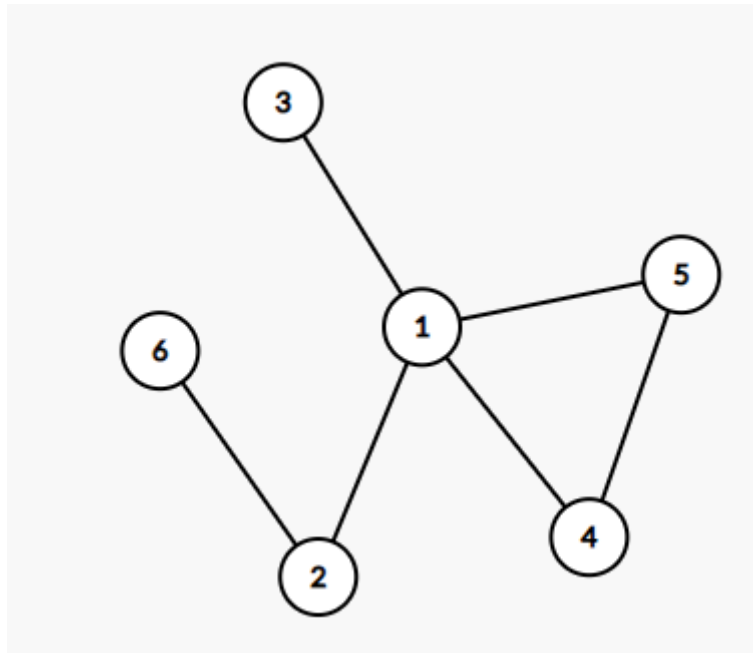


## Articulations Points

Given an undirected graph  $G$ , we say that a vertex  $V$  in  $G$  is an **articulation point (cut vertex)** if the removal of  $V$  along with its associated edges increases the number of connected components in  $G$  (excluding  $V$  itself).

**For Example:**



In the above diagram, Nodes **2** and **1** are **articulation points** as removing either of these nodes disconnects the graph and results in an increase in the number of connected components in the graph.