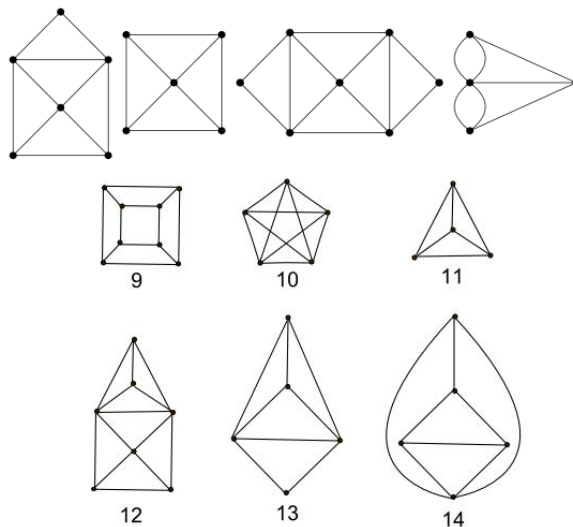


1.1

For each of the following graphs, find an Euler path or make an argument for why no such path can exist.



1.2

For each of the graphs above, list the degrees of each vertex. How many vertices have even degree? Odd degree? Make a conjecture as to what the relationship between the degrees of the vertices and whether or not one can find an Euler path or an Euler circuit.

2.1

It is possible to draw a graph G that has a vertex of degree 1 and has an Euler circuit? If yes then draw it; if no, then argue why it is impossible.

2.2 Is it possible to draw a graph G where every vertex has degree 2 and G has an Euler circuit? Can G have an Euler path?

3 The following shows *part* of a graph G . Without filling in anything else, deduce whether or not G has an Eulerian circuit or an Eulerian path.

