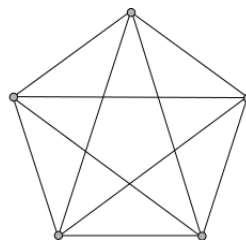
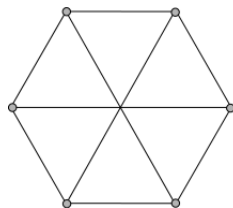


Worksheet 10

1. A k -regular graph is a graph G such that $\deg(v) = k$ for each vertex $v \in V(G)$. How many edges are in a k -regular graph with n vertices?

2. Which of the following graphs are bipartite? Which are not? Prove your answers.



3. Suppose a graph G contains a vertex u with odd degree. Prove that there exists another vertex v distinct from u which also has odd degree.