10.2 Graph Terminology and Special Types of Graphs

10.2 pg. 665 # 1
Find the number of vertices, the number of edges, and the degree of each vertex in the given undirected graph. Identify all isolated and pendant vertices.

10.2 pg. 665 # 13
What does the degree of a vertex represent in an academic collaboration graph? What does the neighborhood of a vertex represent? What do isolated and pendant vertices represent?

10.2 pg. 665 # 21
Determine whether the graph is bipartite.

10.2 pg. 666 # 25
Determine whether the graph is bipartite.
10.2 pg. 666 # 33
For the following graph $G$ find

![Graph Image]

a) a subgraph induced by the vertices $a, b, c, \text{ and } f$.

b) the new graph $G_1$ obtained from $G$ by contracting the edge connecting $b$ and $f$

10.2 pg. 667 # 57
Find the union of the given pair of simple graphs.

![Graph Image]