

CSCI 281, Assignment 09 – Graphs(20 points)

1. (5 points) Draw a graph with:

1. At least 10 vertices
2. An edge with multiplicity three
3. At least three vertices that are all adjacent to one another
4. A vertex of degree five

Note: This is not *simple* graph.

2. (5 points) Draw a simple graph with:

1. Seven vertices
2. One vertex with degree six
3. Six vertices with degree one

3. (5 points) Draw a simple graph G where:

1. $|V(G)| = 6$
2. $\forall v \in V(G), \deg(v) = 5$, where $\deg(v)$ is the degree of vertex v

4. (5 points) Define a simple graph G where:

1. $|V(G)| = 10,000$
2. $\forall v \in V(G), \deg(v) = 0$