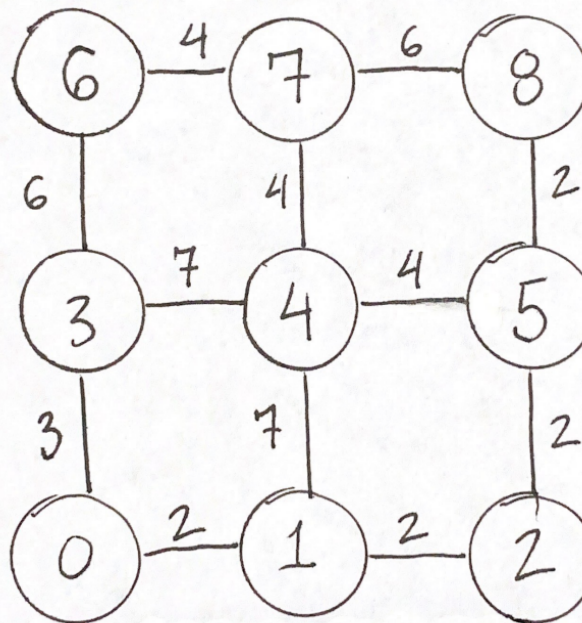


Project 2

By: Sijie Shang and Claire Rhoda

Problem 6-3 (b)



Starting at Vertex 0.

Available Edges: $\{0,1\}, \{0,3\}$

Pick Minimum Weight: $\{0,1\}$ where weight = 2

Available Edges: $\{0,3\}, \{1,2\}, \{1,4\}$

Pick Minimum Weight: $\{1,2\}$, where weight = 2

Available Edges: $\{0,3\}, \{1,4\}, \{2,5\}$

Pick Minimum Weight: $\{2,5\}$ where weight = 2

Available Edges: $\{0,3\}, \{1,4\}, \{5,4\}, \{5,8\}$

Pick Minimum Weight: $\{5,8\}$ where weight = 2

Available Edges: $\{0,3\}, \{1,4\}, \{5,4\}, \{8,7\}$

Pick Minimum Weight: $\{0,3\}$ where weight = 3

Available Edges: $\{1,4\}, \{5,4\}, \{8,7\}, \{3,4\}, \{3,6\}$

Pick Minimum Weight: $\{5,4\}$ where weight = 4

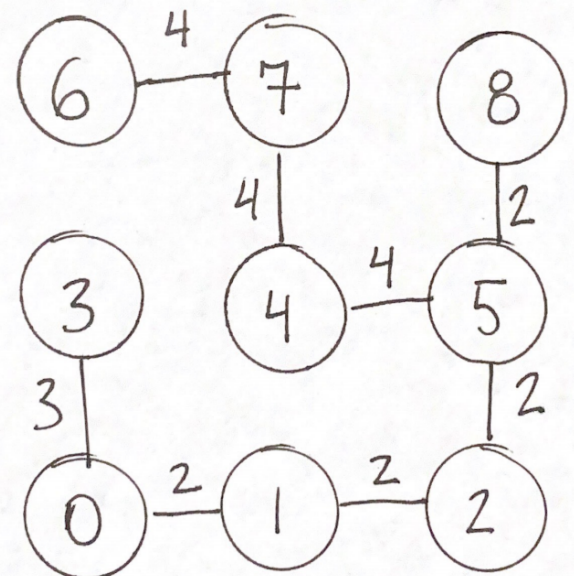
Available Edges: $\{8,7\}, \{3,6\}, \{4,7\}$

Pick Minimum Weight: $\{4,7\}$ where weight = 4

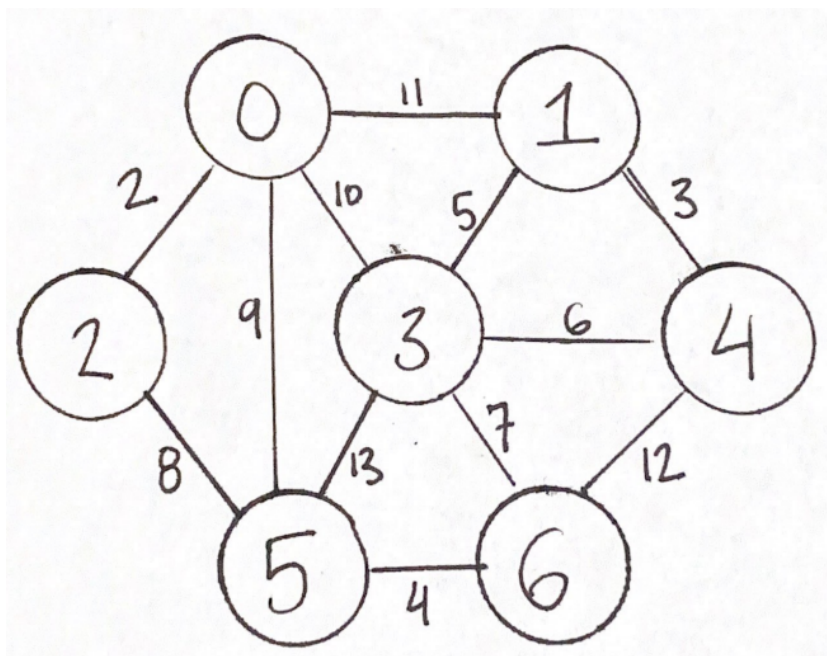
Available Edges: $\{3,6\}, \{7,6\}$

Pick Minimum Weight: $\{7,6\}$ where weight = 4

Final Vertex Order: $0 \rightarrow 1 \rightarrow 2 \rightarrow 5 \rightarrow 8 \rightarrow 3 \rightarrow 4 \rightarrow 7 \rightarrow 6$



Problem 6-3 (c)



Starting at Vertex 0.

Available Edges: $\{0,2\}, \{0,1\}, \{0,5\}, \{0,3\}$

Pick Minimum Weight: $\{0,2\}$ where weight = 2

Available Edges: $\{0,1\}, \{2,5\}, \{0,5\}, \{0,3\}$

Pick Minimum Weight: $\{2,5\}$ where weight = 8

Available Edges: $\{0,1\}, \{0,3\}, \{5,6\}, \{5,3\}$

Pick Minimum Weight: $\{5,6\}$ where weight = 4

Available Edges: $\{0,1\}, \{0,3\}, \{5,3\}, \{6,3\}, \{6,4\}$

Pick Minimum Weight: $\{6,3\}$ where weight = 7

Available Edges: $\{0,1\}, \{6,4\}, \{3,1\}, \{3,4\}$

Pick Minimum Weight: $\{3,1\}$ where weight = 5

Available Edges: $\{6,4\}, \{3,4\}, \{1,4\}$

Pick Minimum Weight: $\{1,4\}$ where weight = 3

