

rev # (8) Parallel edges are edges that on the same pair of vertices

(9) An edge incident on a single vertex is a loop

(10) A vertex that is not incident on any edge is an isolated vertex.

(11) A simple graph is a graph with no loops and no parallel edges

(12) A weighted graph is a graph with numbers assigned to each edge

(13) Any map with distances between locations can be modeled as a weighted graph. Locations are vertices & the edges are represent routes between locations with numbers assigned equal to distance

(14) The length of a path in a weighted graph is the sum of the weight of its edges.

8.1 b exercise 17-33 odd

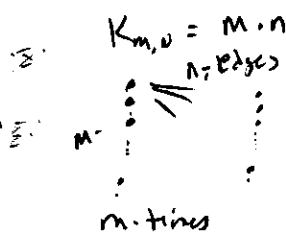
(17) Bipartite $V_1 = \{v_1, v_2, v_5\}$
 $V_2 = \{v_3, v_4\}$

(19) Bipartite $V_1 = \{Arc, Buf, Sho, Dou, Mud\}$
 $V_2 = \{She, wor, Cas, Gil, Lan\}$

(21) Not Bipartite

(23) Bipartite

(25) $K_{1,1} = 1$ $K_{1,2} = 2$
 $K_{2,1} = 2$ $K_{2,2} = 4$
 $K_{3,1} = 3$ $K_{3,2} = 6$



(27) $b \rightarrow \dots \rightarrow e$

b, c, a, d, e
 $6 + 2 + 4 + 4 + 9 = 25$

(29) $a \rightarrow ?? \rightarrow b$

$a, d, c, e, b = 4 + 3 + 5 + 9 = 21$

$a, d, e, c, b = 4 + 4 + 5 + 6 = 19$

$a, c, d, e, b = 2 + 3 + 4 + 9 = 18$

(31) Yes

(33)

