8.1b rev # 8-14 all exer. # 17-33 odd

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) Biparite $V_1 = \{v_1, v_2, v_5\}$

$V_2 = \{v_3, v_4\}$

(19) Biparite $V_1 = \{Gre, Bif, Sho, Dou, Mid\}$

$V_2 = \{She, Wor, Cas, Gil, Lan\}$

(21) Not Biparite

(23) Biparite

(25) $K_{1,1} = 1$ $K_{1,2} = 2$

$K_{2,1} = 2$ $K_{2,2} = 4$

$K_{3,1} = 3$ $K_{3,2} = 6$

$K_{m,n} = m \cdot n$ n; edges

m

m · times

(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)