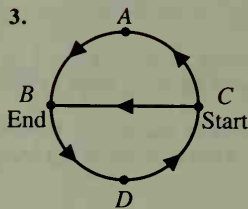
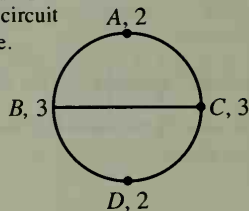


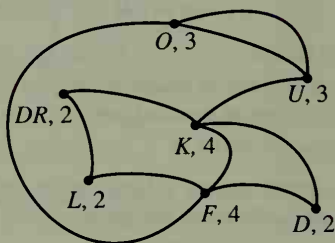
Discrete Mathematics

Exercises, pages 677–678

1. No Euler circuit is possible.



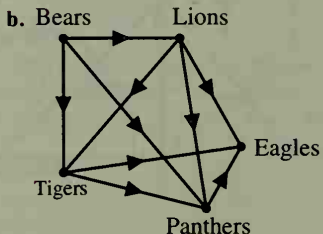
5. a. no



- b. yes

- c. It is possible to travel a path starting at one odd vertex and ending at another, only if the graph contains exactly two odd vertices.

7. a. Bears, Tigers

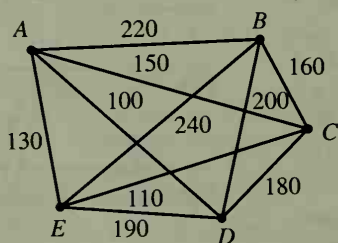


- c. Bears should be ranked first since they have three wins, no losses, and a victory over the other team with three wins (Lions). Eagles should be ranked last since they have no wins, three losses, and a loss to the only other team with three losses (Panthers).

Exercises, pages 679–681

1. no 3. a. yes b. 2-by-3, 2-by-8, 4-by-6 c. At least one of x or y must be even. 5. yes 7. a. $20! = 2,432,902,008,176,640,000$ b. 20 c. $20 \times 20! = 48,658,040,163,532,800,000$ d. about 1543 years

9. a.

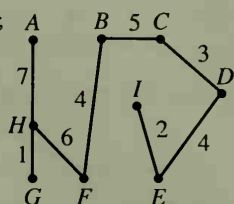


- b. $ADCEBA = \$850$ c. $AECBDA = \$700$

11. The postal service collecting mail from mailboxes, or delivering packages to specific destinations.

Exercises, pages 682–683

1. 32;



3. $n - 1$

5. \$840

7. a. \$99,000 b. \$34,000