Module Test B   Module 9
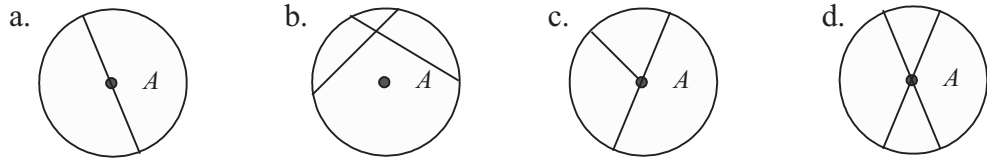
Circle the correct answer for each problem.
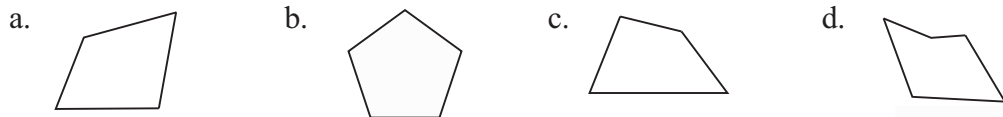
1. What is the radius of a circle if its diameter is 36 inches?

    a. 113 inches   b. 72 inches   c. 18 inches   d. 9 inches

2. Point *A* is the center of each circle. Which figure shows two chords that are not diameters?

    a.   b.   c.   d.

3. Which polygon is concave?

    a.   b.   c.   d.

4. Classify a polygon with five sides.

    a. pentagon   b. hexagon   c. heptagon   d. octagon

5. Which must have four right angles?

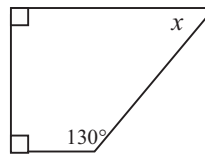   a. parallelogram   b. trapezoid   c. rectangle   d. rhombus

6. Three angles in a quadrilateral measure 63°, 109°, and 84°. Find the measure of the fourth angle.

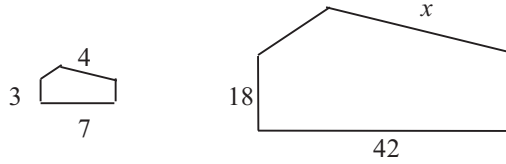**7.** Find the value of x in the trapezoid at right.

130°

x

8. The radius of a tire is $17\dfrac{1}{2}$ inches. Use $\dfrac{22}{7}$ for π to approximate the circumference of the tire.

9. A bucket has a diameter of 60 centimeters. Estimate the circumference of the bucket using 3.14 for π.

10. The polygons are similar. What is the value of x?

11. A 24-inch by 36-inch photo is enlarged to 150% of the original. What are the dimensions of the enlarged photo?

12. The scale on a map is 3 in. = 25 mi. If the actual distance between the two towns is 125 miles, what is the distance between the two towns on the map?

13. Amy knows that lines a and b are intersecting and makes the following conjecture: a and b are perpendicular. Draw a counterexample to Amy's conjecture.
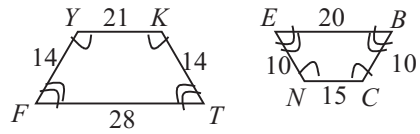
Module 9

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14. What are the next two figures in the pattern? Explain how you know. Did you use inductive or deductive reasoning?

□○△□○○△□○○○△□○○

15. Determine if the two polygons are similar. Explain why or why not.

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