

Module Test A

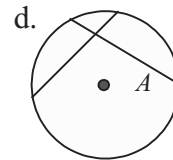
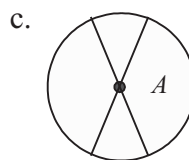
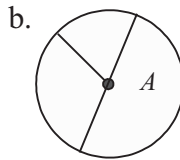
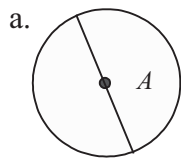
Module 9

Circle the correct answer for each problem.

1. What is the radius of a circle if its diameter is 24 inches?

- a. 6 inches b. 12 inches c. 48 inches d. 75 inches

2. Point *A* is the center of each circle. Which figure shows exactly two diameters?



3. Which polygon is convex?



4. Classify a polygon with six sides.

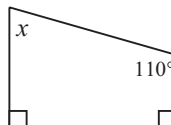
- a. pentagon b. hexagon c. heptagon d. octagon

5. Which must have four congruent sides?

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

6. Three angles in a quadrilateral measure 35° , 141° , and 88° . Find the measure of the fourth angle.

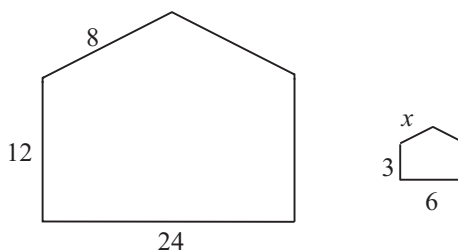
7. Find the value of x in the trapezoid at right.



8. The radius of a small plate is $3\frac{1}{2}$ inches. Use $\frac{22}{7}$ for π to approximate the circumference of the plate.

9. A tree trunk has a diameter of 70 centimeters. Estimate the circumference of the tree trunk 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 reduced to 75% of the original. What are the dimensions of the reduced photo?

12. The scale on a map is 2 in. = 15 mi. If the actual distance between the two towns is 45 miles, what is the distance between the two towns on the map?

13. Ian knows that $\angle 1$ and $\angle 2$ are congruent and makes the following conjecture: $\angle 1$ and $\angle 2$ are vertical angles. Draw a counterexample to Ian's conjecture.

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.

