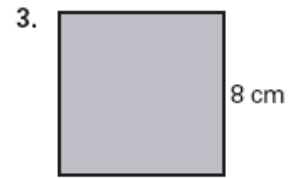
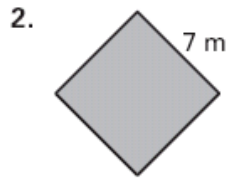
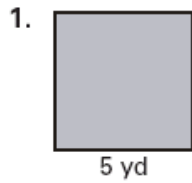


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Perimeter, Circumference, and Area Assignment

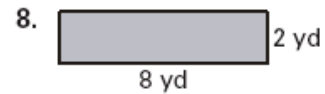
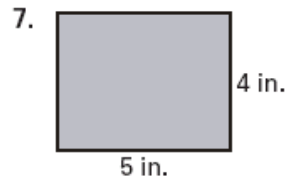
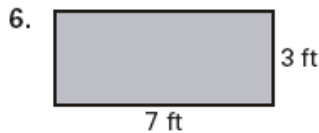
Use the formula $\text{Area} = (\text{side})^2$ to find the area of the square.



Sketch the figure and find its area.

- 4. a square with side lengths of 6 feet
- 5. a square with side lengths of 10 inches

Use the formula $\text{Area} = (\text{base})(\text{height})$ to find the area of the rectangle.

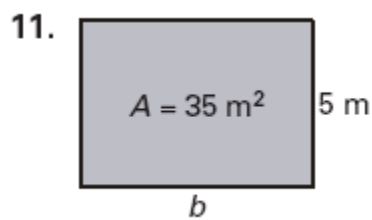


Sketch the figure and find its area.

- 9. a rectangle with a base of 9 meters and a height of 10 meters

- 10. a rectangle with a base of 12 feet and a height of 4 feet

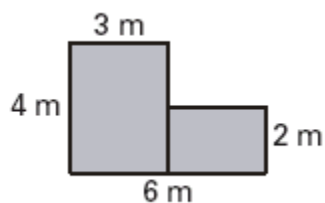
A gives the area of the rectangle. Find the missing side length.



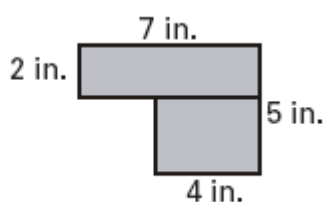
Perimeter, Circumference, and Area Assignment

In Exercises 12–14, find the area of the polygon made up of rectangles.

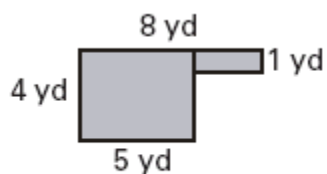
12.



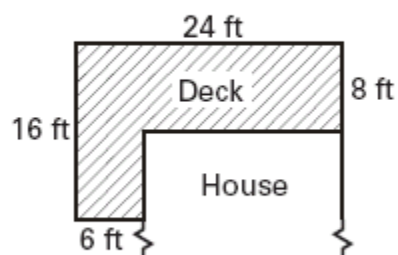
13.



14.



15. A deck wraps around the back of a house. Find the area of the deck made up of rectangles.

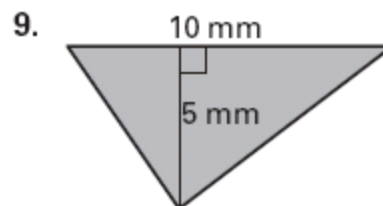
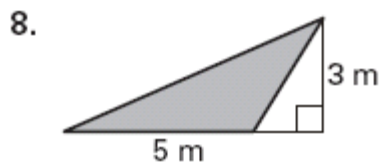
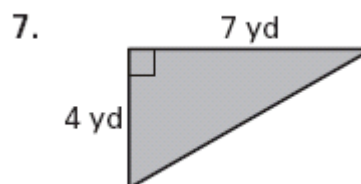
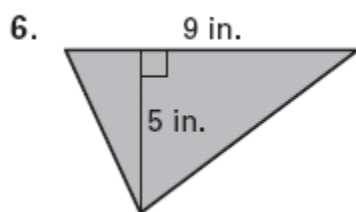
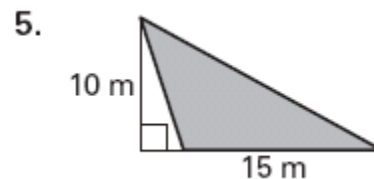
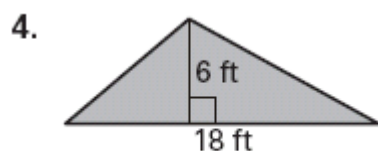
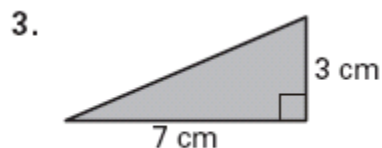
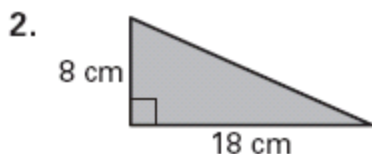


Perimeter, Circumference, and Area Assignment

Complete the statement.

1. The ? of a triangle is the perpendicular segment from a vertex to a line containing the opposite side, called the ? of the triangle.

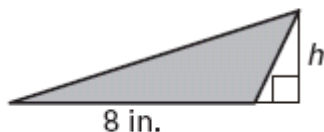
Find the area of the shaded triangle.



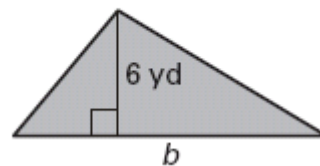
Perimeter, Circumference, and Area Assignment

A gives the area of the triangle. Find the missing measure.

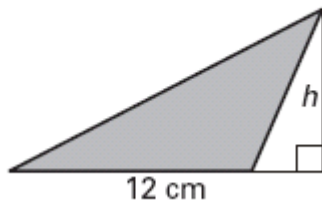
10. $A = 12 \text{ in.}^2$



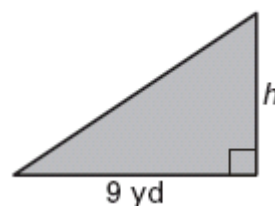
11. $A = 45 \text{ yd}^2$



12. $A = 48 \text{ cm}^2$



13. $A = 27 \text{ yd}^2$



The front side of the A-frame house shown is 22 feet high and has an area of 286 square feet.



14. How wide is the house at ground level?

15. What is the area of the triangular window if it is 5.5 feet wide and 4 feet high?

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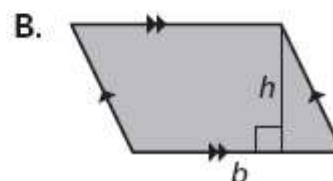
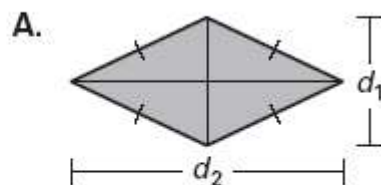
Perimeter, Circumference, and Area Assignment

Perimeter, Circumference, and Area Assignment

Match the area formula with the figure.

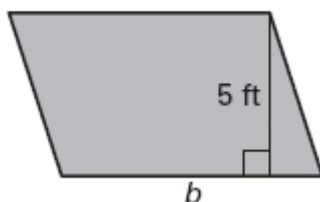
1. $\text{Area} = \frac{1}{2} (\text{product of diagonals})$

2. $\text{Area} = (\text{base})(\text{height})$

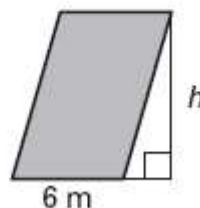


A gives the area of the parallelogram. Find the missing measure.

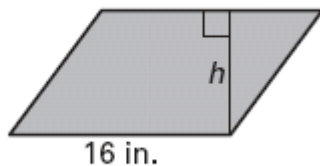
3. $A = 40 \text{ ft}^2$



4. $A = 54 \text{ m}^2$



5. $A = 144 \text{ in.}^2$



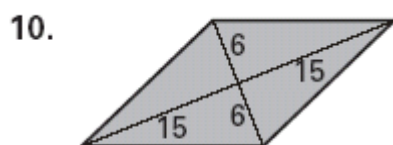
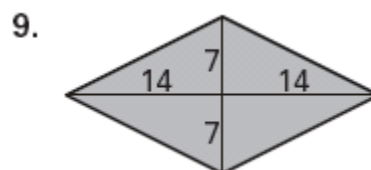
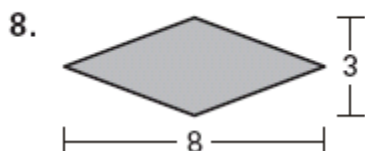
6. A parallelogram has a base of 8 yards and an area of 104 square yards.
Find the height.

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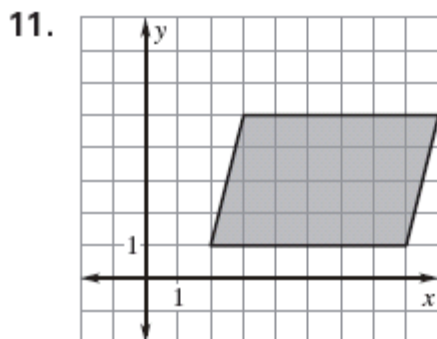
Perimeter, Circumference, and Area Assignment

7. A parallelogram has a height of 12 meters and an area of 132 square meters.
Find the base.

Find the area of the rhombus.

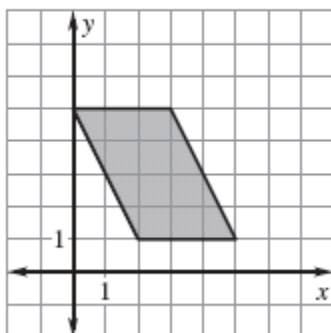


Find the area of the parallelogram.



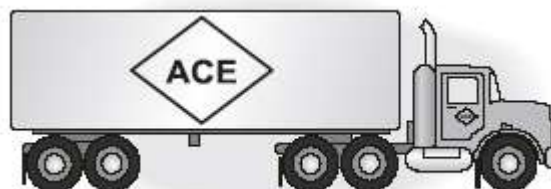
Perimeter, Circumference, and Area Assignment

12.



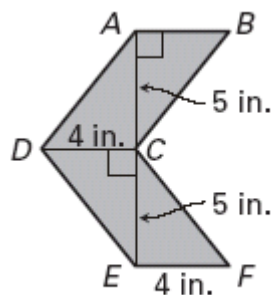
Ace trucking company's logo is a rhombus.
The length of the diagonals of the logo are eight feet and six feet, and the sides are five feet long.

13. Find the area of the logo.



The traffic sign shown at the right is used to direct traffic flow.

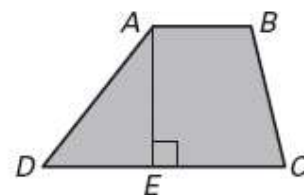
14. Find the area of polygon $ABCFED$.



Perimeter, Circumference, and Area Assignment

Use the figure at the right.

1. Identify the height of trapezoid $ABCD$.
2. Identify the bases of trapezoid $ABCD$.
3. State the formula for the area of a trapezoid. Use h for the height, and b_1 and b_2 for the bases.



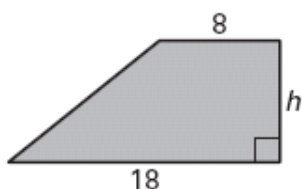
Match the trapezoid with the equation used to find the height.

A. $A = \frac{1}{2}(h)(18 + 24)$

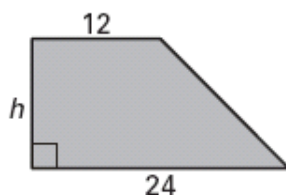
B. $A = \frac{1}{2}(h)(8 + 18)$

C. $A = \frac{1}{2}(h)(12 + 24)$

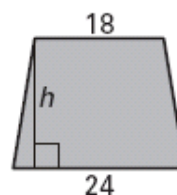
4.



5.

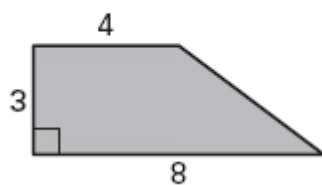


6.

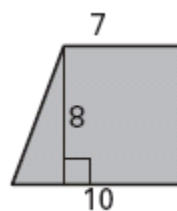


Find the area of the trapezoid.

7.



8.



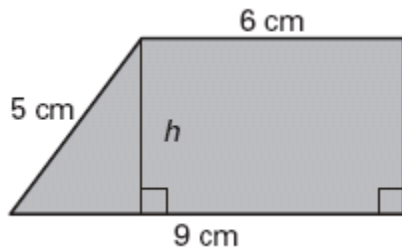
9. A trapezoid has an area of 60 square units. The lengths of the bases are 6 units and 9 units. Find the height.

Perimeter, Circumference, and Area Assignment

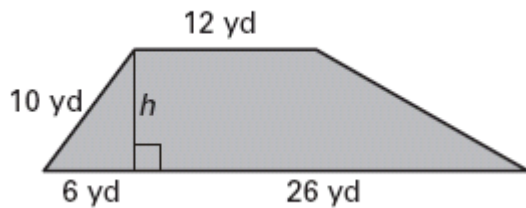
10. A trapezoid has an area of 135 square units. The height is 10 units and the length of one of the bases is 12 units. Find the length of the other base.

Find the height using the Pythagorean Theorem. Then find the area of the trapezoid.

11.



12.



13. The front of the computer speaker shown at the right is a trapezoid. If the area of the front of the speaker is 15 square inches, what is the height of the speaker?

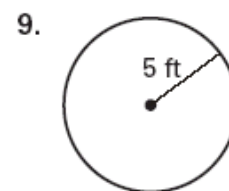
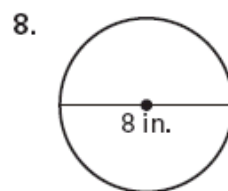
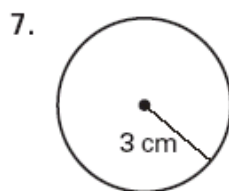


Perimeter, Circumference, and Area Assignment

Match the key word with the descriptive phrase.

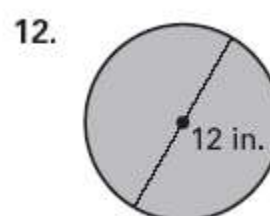
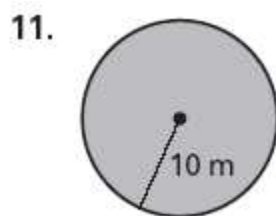
- | | |
|--|------------------|
| 1. the set of all points in a plane that are the same distance from a given point, called the center | A. diameter |
| 2. the distance from the center to a point on the circle | B. circumference |
| 3. the distance across the circle, through the center | C. circle |
| 4. the distance around a circle | D. radius |
| 5. an angle of a circle whose vertex is the center of the circle | E. sector |
| 6. a region of a circle determined by two radii and a part of the circle | F. central angle |

In Exercises 7–11, use the formula $C = \pi d$ or the formula $C = 2\pi r$ to find the circumference of the circle. Round your answer to the nearest whole number.



10. a circle with a radius of 2 yards

Find the area of the circle. Round your answer to the nearest whole number.



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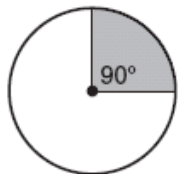
Perimeter, Circumference, and Area Assignment

13. Find the radius of a circle with an area of 30 square units. Round your answer to the nearest whole number.
14. Find the diameter of a circle with an area of 50 square units. Round your answer to the nearest whole number.

A represents the area of the entire circle and **x** represents the area of the shaded sector. Complete the proportion used to find **x**. Do not solve the proportion.

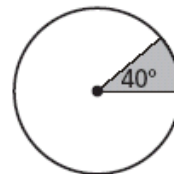
15. $A = 16 \text{ m}^2$

$$\frac{x}{?} = \frac{?}{360^\circ}$$



16. $A = 18 \text{ ft}^2$

$$\frac{x}{?} = \frac{?}{360^\circ}$$



The radius of the face of the clock is 5 inches.

17. Find the circumference of the face of the clock. Round your answer to the nearest whole number.



18. Find the area of the face of the clock. Round your answer to the nearest whole number.