
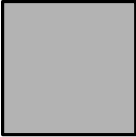
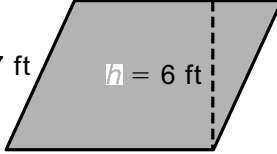


# Study Guide

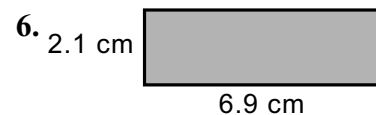
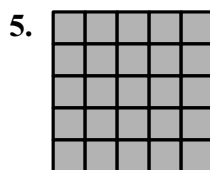
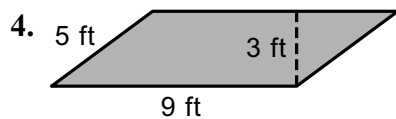
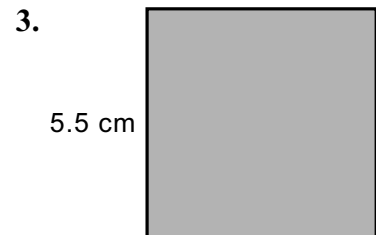
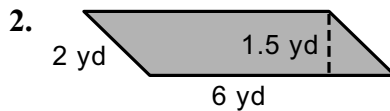
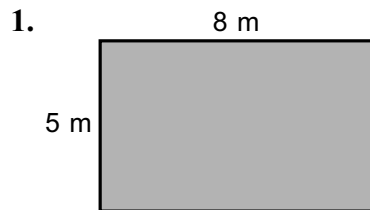
## Integration: Geometry Perimeter and Area

**Perimeter** is the distance around the figure.

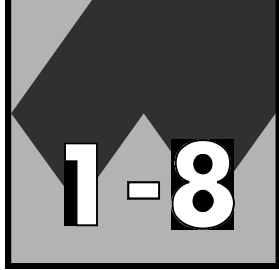
**Area** is the measure of the inside of the figure in square units.

| Figure           | Rectangle   | Square   | Parallelogram   |
|------------------|---|--|---|
| <b>Perimeter</b> | $P = 2\ell + 2w$  | $P = 4s$   | $P = 2a + 2b$   |
| <b>Area</b>      | $A = \ell w$  | $A = s^2$  | $A = bh$  |
| <b>Example</b>   | <p><math>\ell = 9\text{ m}</math></p> <p><math>w = 4\text{ m}</math></p>  <p><math>P = 2(9) + 2(4)</math><br/> <math>P = 18 + 8 = 26\text{ m}</math><br/> <math>A = 9 \cdot 4</math><br/> <math>A = 36\text{ sq. m}</math></p> | <p><math>s = 8\text{ cm}</math></p>  <p><math>P = 4 \times 8</math><br/> <math>P = 32\text{ cm}</math><br/> <math>A = 8^2</math><br/> <math>A = 64\text{ sq. cm}</math></p> | <p><math>a = 7\text{ ft}</math></p> <p><math>b = 5\text{ ft}</math></p> <p><math>h = 6\text{ ft}</math></p>  <p><math>P = 2(7) + 2(5)</math><br/> <math>P = 14 + 10 = 24\text{ ft}</math><br/> <math>A = 5 \cdot 6</math><br/> <math>A = 30\text{ sq. ft}</math></p> |

**Find the perimeter and area of each figure.**



- A rectangle is 18 feet long. Find its perimeter if its width is  $\frac{1}{2}$  of its length.
- Use an equation to find the width of a rectangle that has a length of 12 meters and an area of 84 square meters.

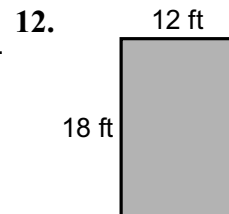
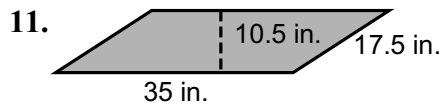
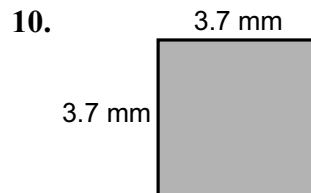
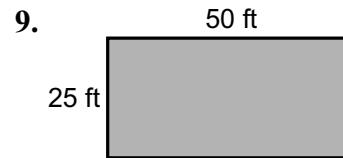
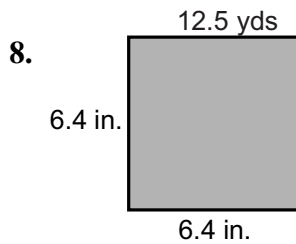
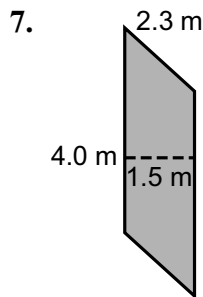
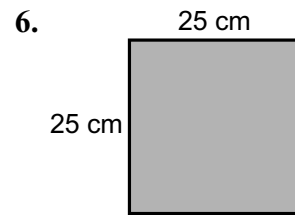
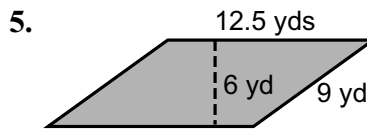
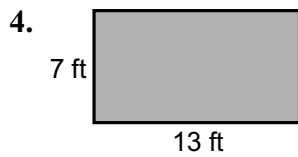
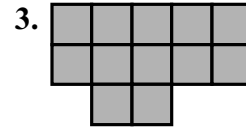
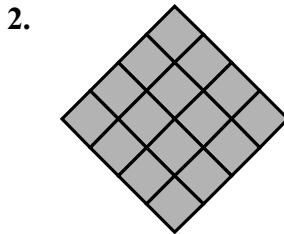
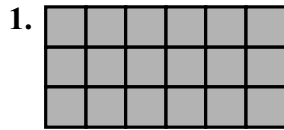


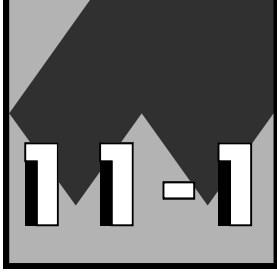
Name \_\_\_\_\_ Date \_\_\_\_\_

# Practice

## Integration: Geometry Perimeter and Area

Find the perimeter and area of each figure.

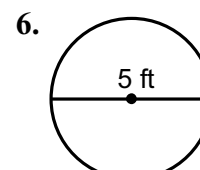
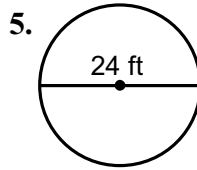
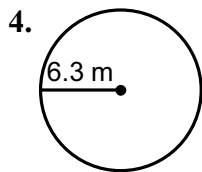
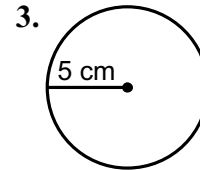
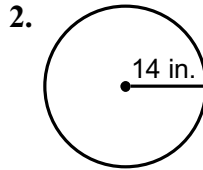
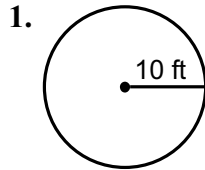




# Practice

## Area of Circles

Find the area of each circle to the nearest tenth.

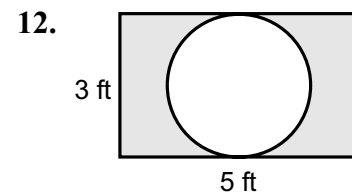
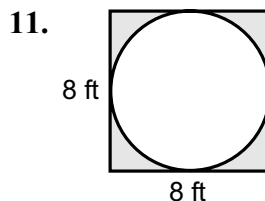
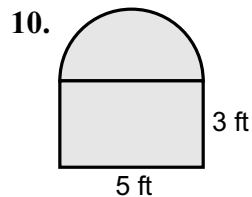


7. Find the area of a circle that has a diameter of 60 feet.

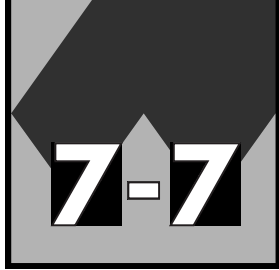
8. Find the area of a circle that has a radius of 22 feet.

9. Find the diameter of a circle that has an area of  $36\pi$  square inches.

Find the area of each shaded region to the nearest tenth.



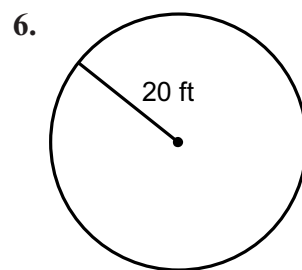
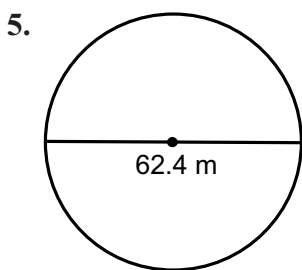
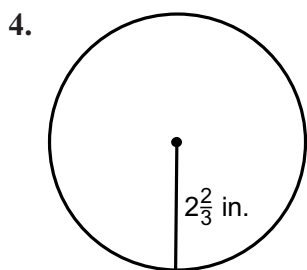
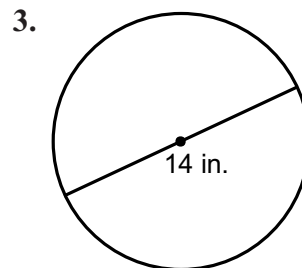
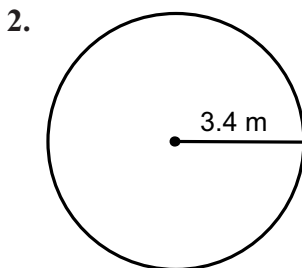
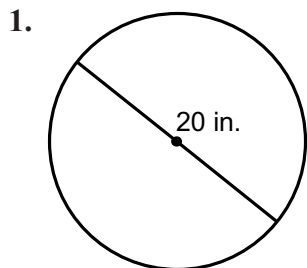
13. A circular flower garden has a diameter of 16 feet. At the center of the garden is a circular pool 5 feet in diameter. If a coin is tossed at random into the garden, what is the probability that the coin will land in the pool?



# Practice

## Integration: Geometry Circles and Circumference

Find the circumference of each circle to the nearest tenth.  
Use  $\frac{22}{7}$  or 3.14 for  $\pi$ .



7. The diameter is  $4\frac{1}{7}$  inches.

8. The radius is 18 feet.

9. The diameter is 36.4 centimeters.

10. The radius is 27 yards.

11. The diameter is  $6\frac{2}{3}$  yards.

12. The radius is 4.9 feet.

13. The diameter is  $2\frac{1}{2}$  miles.

14. The diameter is 6.8 meters.