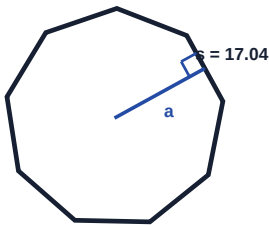


Regular Polygon Area and Perimeter

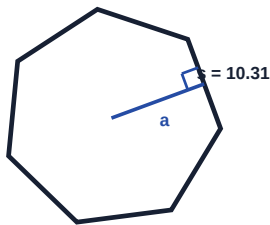
Identify each regular polygon and find the requested area or perimeter. For area, use the displayed side and approximate apothem, then round to two decimal places.

1. Identify the regular polygon. Given  $s = 17.04$  yards and a approximately 23.4085 yards, find its area and perimeter. Round area to two decimal places.



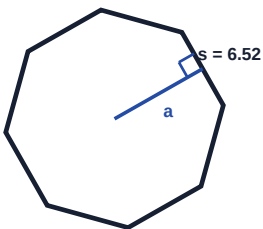
Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

2. Identify the regular polygon. Given  $s = 10.31$  inches and a approximately 10.7045 inches, find its area and perimeter. Round area to two decimal places.



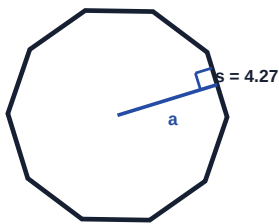
Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

3. Identify the regular polygon. Given  $s = 6.52$  feet and a approximately 7.8703 feet, find its area and perimeter. Round area to two decimal places.



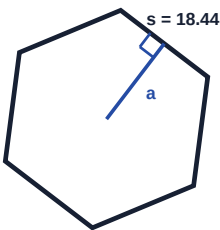
Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

4. Identify the regular polygon. Given  $s = 4.27$  centimeters and a approximately 6.5709 centimeters, find its area and perimeter. Round area to two decimal places.



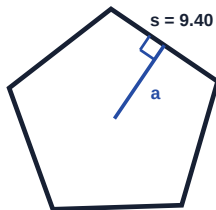
Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

5. Identify the regular polygon. Given  $s = 18.44$  millimeters and a approximately 15.9695 millimeters, find its area and perimeter. Round area to two decimal places.



Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

6. Identify the regular polygon. Given  $s = 9.40$  feet and a approximately 6.4690 feet, find its area and perimeter. Round area to two decimal places.

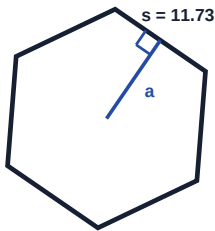


Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

Regular Polygon Area and Perimeter

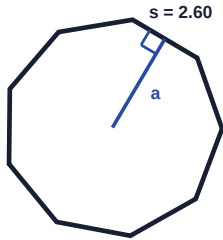
Identify each regular polygon and find the requested area or perimeter. For area, use the displayed side and approximate apothem, then round to two decimal places.

7. Identify the regular polygon. Given  $s = 11.73$  millimeters and a approximately 10.1585 millimeters, find its area and perimeter. Round area to two decimal places.



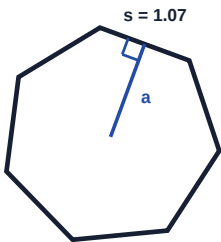
Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

8. Identify the regular polygon. Given  $s = 2.60$  centimeters and a approximately 3.5717 centimeters, find its area and perimeter. Round area to two decimal places.



Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

9. Identify the regular polygon. Given  $s = 1.07$  yards and a approximately 1.1109 yards, find its area and perimeter. Round area to two decimal places.



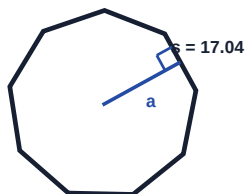
Type: \_\_\_\_\_  
Area: \_\_\_\_\_  
Perimeter: \_\_\_\_\_

## Regular Polygon Area and Perimeter

### Worked Answer Key

Identify each regular polygon and find the requested area or perimeter. For area, use the displayed side and approximate apothem, then round to two decimal places.

1. Identify the regular polygon. Given  $s = 17.04$  yards and a approximately 23.4085 yards, find its area and perimeter. Round area to two decimal places.



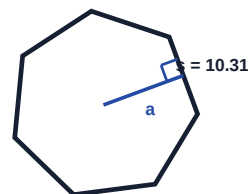
Type: Nonagon (9 sides).

$$P = ns = 9(17.04) = 153.36 \text{ yards.}$$

Using the displayed apothem,  $A = nsa/2 = 9(17.04)(23.4085)/2$  approximately 1794.96 square yards.

**Type: Nonagon; Area approximately 1794.96 square yards; Perimeter = 153.36 yards**

2. Identify the regular polygon. Given  $s = 10.31$  inches and a approximately 10.7045 inches, find its area and perimeter. Round area to two decimal places.



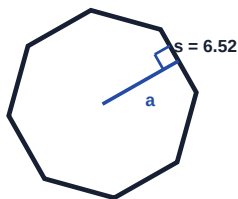
Type: Heptagon (7 sides).

$$P = ns = 7(10.31) = 72.17 \text{ inches.}$$

Using the displayed apothem,  $A = nsa/2 = 7(10.31)(10.7045)/2$  approximately 386.27 square inches.

**Type: Heptagon; Area approximately 386.27 square inches; Perimeter = 72.17 inches**

3. Identify the regular polygon. Given  $s = 6.52$  feet and a approximately 7.8703 feet, find its area and perimeter. Round area to two decimal places.



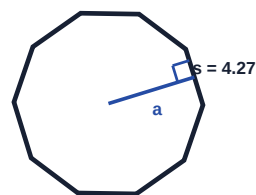
Type: Octagon (8 sides).

$$P = ns = 8(6.52) = 52.16 \text{ feet.}$$

Using the displayed apothem,  $A = nsa/2 = 8(6.52)(7.8703)/2$  approximately 205.26 square feet.

**Type: Octagon; Area approximately 205.26 square feet; Perimeter = 52.16 feet**

4. Identify the regular polygon. Given  $s = 4.27$  centimeters and a approximately 6.5709 centimeters, find its area and perimeter. Round area to two decimal places.



Type: Decagon (10 sides).

$$P = ns = 10(4.27) = 42.70 \text{ centimeters.}$$

Using the displayed apothem,  $A = nsa/2 = 10(4.27)(6.5709)/2$  approximately 140.29 square centimeters.

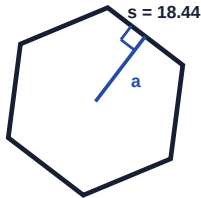
**Type: Decagon; Area approximately 140.29 square centimeters; Perimeter = 42.70 centimeters**

## Regular Polygon Area and Perimeter

## Worked Answer Key

Identify each regular polygon and find the requested area or perimeter. For area, use the displayed side and approximate apothem, then round to two decimal places.

5. Identify the regular polygon. Given  $s = 18.44$  millimeters and a approximately 15.9695 millimeters, find its area and perimeter. Round area to two decimal places.



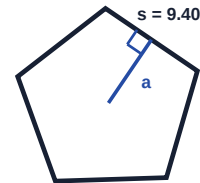
Type: Hexagon (6 sides).

$$P = ns = 6(18.44) = 110.64 \text{ millimeters.}$$

Using the displayed apothem,  $A = nsa/2 = 6(18.44)(15.9695)/2$  approximately 883.43 square millimeters.

**Type: Hexagon; Area approximately 883.43 square millimeters; Perimeter = 110.64 millimeters**

6. Identify the regular polygon. Given  $s = 9.40$  feet and a approximately 6.4690 feet, find its area and perimeter. Round area to two decimal places.



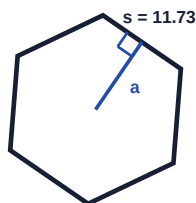
Type: Pentagon (5 sides).

$$P = ns = 5(9.40) = 47.00 \text{ feet.}$$

Using the displayed apothem,  $A = nsa/2 = 5(9.40)(6.4690)/2$  approximately 152.02 square feet.

**Type: Pentagon; Area approximately 152.02 square feet; Perimeter = 47.00 feet**

7. Identify the regular polygon. Given  $s = 11.73$  millimeters and a approximately 10.1585 millimeters, find its area and perimeter. Round area to two decimal places.



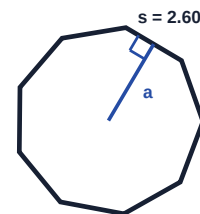
Type: Hexagon (6 sides).

$$P = ns = 6(11.73) = 70.38 \text{ millimeters.}$$

Using the displayed apothem,  $A = nsa/2 = 6(11.73)(10.1585)/2$  approximately 357.48 square millimeters.

**Type: Hexagon; Area approximately 357.48 square millimeters; Perimeter = 70.38 millimeters**

8. Identify the regular polygon. Given  $s = 2.60$  centimeters and a approximately 3.5717 centimeters, find its area and perimeter. Round area to two decimal places.



Type: Nonagon (9 sides).

$$P = ns = 9(2.60) = 23.40 \text{ centimeters.}$$

Using the displayed apothem,  $A = nsa/2 = 9(2.60)(3.5717)/2$  approximately 41.79 square centimeters.

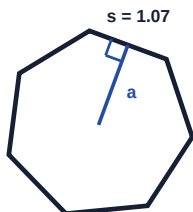
**Type: Nonagon; Area approximately 41.79 square centimeters; Perimeter = 23.40 centimeters**

## Regular Polygon Area and Perimeter

### Worked Answer Key

Identify each regular polygon and find the requested area or perimeter. For area, use the displayed side and approximate apothem, then round to two decimal places.

9. Identify the regular polygon. Given  $s = 1.07$  yards and a approximately 1.1109 yards, find its area and perimeter. Round area to two decimal places.



Type: Heptagon (7 sides).

$P = ns = 7(1.07) = 7.49$  yards.

Using the displayed apothem,  $A = nsa/2 = 7(1.07)(1.1109)/2$  approximately 4.16 square yards.

**Type: Heptagon; Area approximately 4.16 square yards; Perimeter = 7.49 yards**