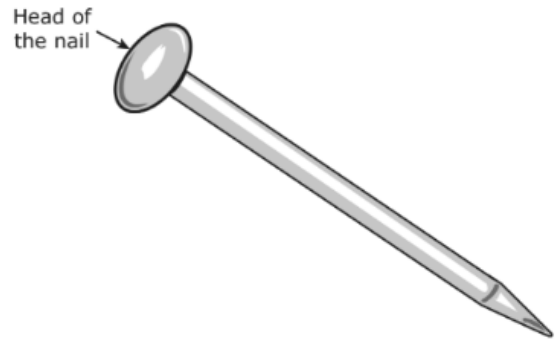


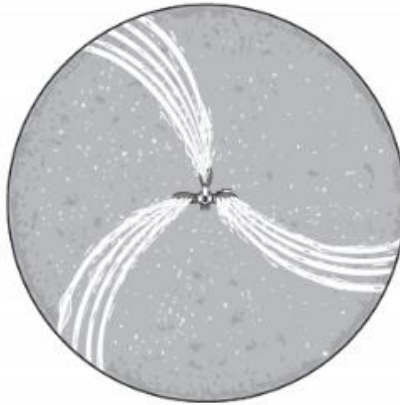
Apply It!

1. The head of a nail is circular, as shown. The head of this nail has a diameter of 6 millimeters. Which measurement is closest to the area of the head of this nail in square millimeters?

- A 9.42 mm^2
- B 113.04 mm^2
- C 28.26 mm^2
- D 37.68 mm^2



2. A rotating lawn sprinkler sprays water in a circular area of grass, as shown in the picture. The diameter of the circular area of grass is 16 ft.



Which measurement is closest to the area in square feet that this sprinkler sprays with water?

- A 100.48 ft^2
- B 50.24 ft^2
- C 200.96 ft^2
- D 803.84 ft^2

3. A circular railroad-crossing sign has a diameter of 30 inches.

Which measurement is closest to the area of the sign in square inches?



- A 94.2 in^2
- B 188.4 in^2
- C 706.5 in^2
- D 286.6 in^2

4. A group of students stood in a circle to play a game. The circle had a diameter of 22 meters. Which measurement is closest to the circumference of the circle in meters?

- A 34.54 m
- B $1,519.76 \text{ m}$
- C 379.94 m
- D 69.08 m

5. Jennifer painted a tabletop that is shaped like a circle. The circumference of the tabletop is 6π feet. Which measurement is closest to the area of the tabletop in square feet?

- A 18.84 ft^2
- B 28.26 ft^2
- C 37.68 ft^2
- D 113.04 ft^2

Apply It Answers and Work!

1. The head of a nail is circular, as shown. The head of this nail has a diameter of 6 millimeters. Which measurement is closest to the area of the head of this nail in square millimeters?

a. 9.42 mm^2

b. 113.04 mm^2

c. 28.26 mm^2

d. 37.68 mm^2

$$A = \pi r^2$$

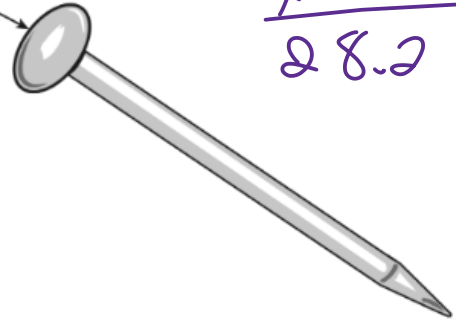
$$d = 6$$

$$r = 3$$

$$3.14 (3^2)$$

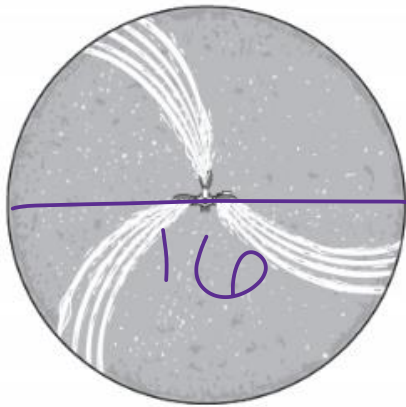
$$3.14 (9)$$

Head of the nail



$$\begin{array}{r} 3.14 \\ \times 9 \\ \hline 28.26 \end{array}$$

2. A rotating lawn sprinkler sprays water in a circular area of grass, as shown in the picture. The diameter of the circular area of grass is 16 ft.



Which measurement is closest to the area in square feet that this sprinkler sprays with water?

a. 100.48 ft^2

b. 50.24 ft^2

c. 200.96 ft^2

d. 803.84 ft^2

$$A = \pi r^2$$

$$d = 16$$

$$r = 8$$

$$A = 3.14 (8^2)$$

$$3.14 (64)$$

$$\begin{array}{r} 3.14 \\ \times 64 \\ \hline 1256 \\ + 18840 \\ \hline 200.96 \end{array}$$

3. A circular railroad-crossing sign has a diameter of 30 inches.

Which measurement is closest to the area of the sign in square inches?



- a. 94.2 in^2
- b. 188.4 in^2
- c. 706.5 in^2
- d. 286.6 in^2

$$A = \pi r^2$$

$$d = 30$$

$$r = 15$$

$$A = 3.14 (15^2)$$

$$= 706.5$$

4. A group of students stood in a circle to play a game. The circle had a diameter of 22 meters. Which measurement is closest to the circumference of the circle in meters?

- a. 34.54 m
- b. $1,519.76 \text{ m}$
- c. 379.94 m
- d. 69.08 m

$$C = \pi d$$

$$d = 22$$

$$C = 3.14 (22)$$

$$\begin{array}{r} 3.14 \\ \times 22 \\ \hline 628 \\ + 6380 \\ \hline 6908 \end{array}$$

5. Jennifer painted a tabletop that is shaped like a circle. The circumference of the tabletop is 6π feet. Which measurement is closest to the area of the tabletop in square feet?

- a. 18.84 ft^2
- b. 28.26 ft^2
- c. 37.68 ft^2
- d. 113.04 ft^2

$$C = 6\pi$$

$$C = 2\pi r \Rightarrow r = 3$$

$$A = \pi r^2$$

$$A = 3.14 (3^2)$$

$$= 28.26$$