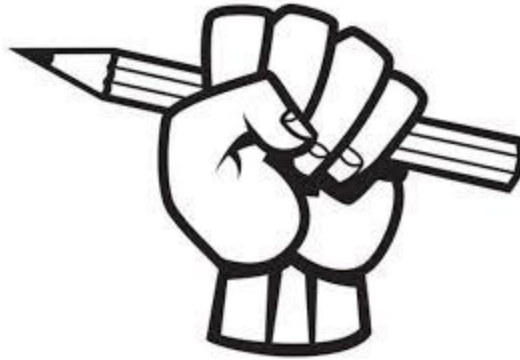


Name:

Period:



## Unit 11 Practice Test

### Calculators OK



$$\frac{\text{Circumference}}{\text{Diameter}} = \pi = 3.14159\dots$$

$$\pi \approx 3.14$$

$$\text{Circumference} = \pi d$$

$$\text{Area} = \pi r^2$$

Question 01

Complete all blanks.

Radius of circle \_\_\_\_\_ in.

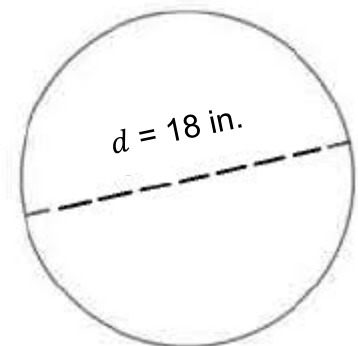
Diameter of circle \_\_\_\_\_ in.

Circumference in terms of pi \_\_\_\_\_ in.

Circumference using 3.14 for pi. Round to tenth. \_\_\_\_\_ in.

Area in terms of pi \_\_\_\_\_ sq. in.

Area using 3.14 for pi. Round to tenth. \_\_\_\_\_ sq. in.



Question 02

Complete all blanks.

Radius of circle \_\_\_\_\_ in.

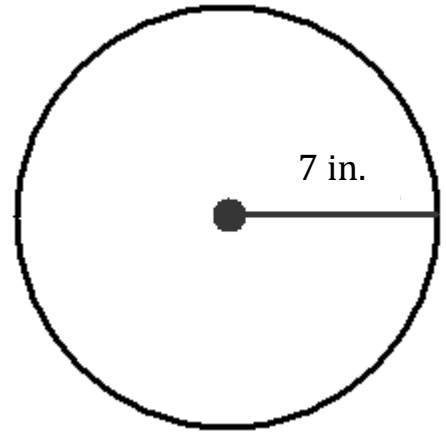
Diameter of circle \_\_\_\_\_ in.

Circumference in terms of pi \_\_\_\_\_ in.

Circumference using 3.14 for pi. Round to tenth. \_\_\_\_\_ in.

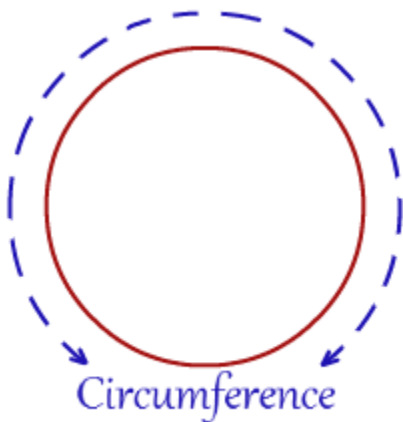
Area in terms of pi \_\_\_\_\_ sq. in.

Area using 3.14 for pi. Round to tenth. \_\_\_\_\_ sq. in.



Question 03

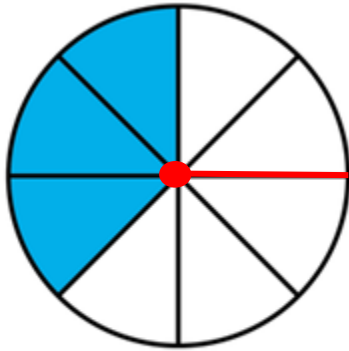
If the circumference of the circle below is approximately 7.85 cm. What is the area of the circle? Use 3.14 for pi. Round your answer to the nearest tenth of a square cm.



Answer: \_\_\_\_\_ sq. cm.

Question 04

What is the area of the shaded portion of the circle below? Use 3.14 for pi. Round your answer to the nearest tenth of a square cm.

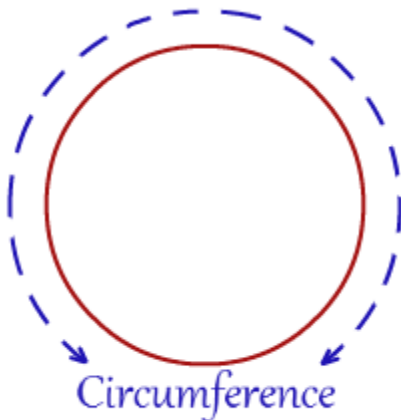


Radius = 6 cm

Answer: \_\_\_\_\_ sq. cm.

Question 05

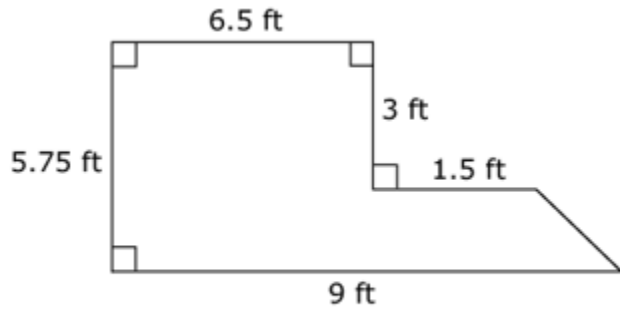
Two-thirds of the circumference of the circle below is approximately 43.96 cm. What is the area of the circle? Use 3.14 for pi. Round your answer to the nearest tenth of a square cm.



Answer: \_\_\_\_\_ sq. cm.

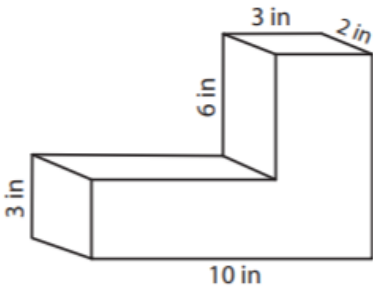
Question 06

What is the **area** of the figure below? Round your answer to the nearest tenth of a square foot.



Answer: \_\_\_\_\_ sq. ft.

Question 07

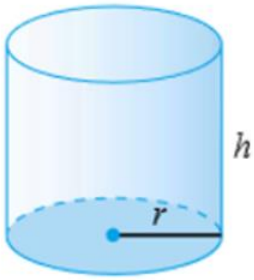


**Part 1.** What is the **surface area** of the figure above? Round your answer to the nearest tenth of a square inch.

Answer: \_\_\_\_\_ square inches

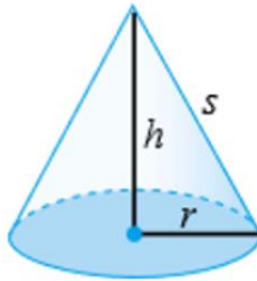
**Part 2.** What is the **volume** of the figure above? Round your answer to the nearest tenth of a cubic inch.

Answer: \_\_\_\_\_ cubic inches



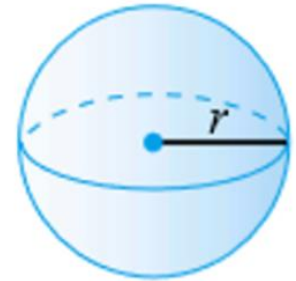
$$\text{Volume} = \pi r^2 h$$

$$\text{Surface Area} = 2\pi r^2 + 2\pi r h$$



$$\text{Volume} = \frac{1}{3} \pi r^2 h$$

$$\text{Surface Area} = \pi r^2 + \pi r s$$

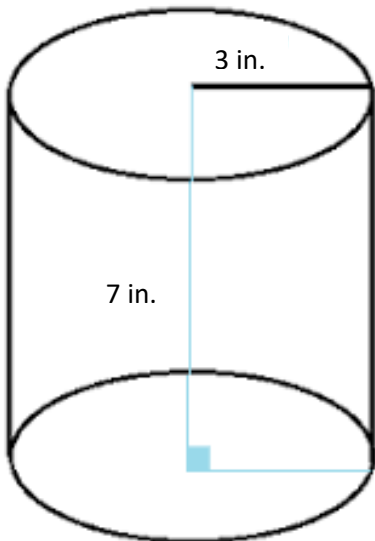


$$\text{Volume} = \frac{4}{3} \pi r^3$$

$$\text{Surface Area} = 4\pi r^2$$

Question 08

Find the volume and surface area of the figure below. Use 3.14 for  $\pi$ . Round to the nearest tenth.

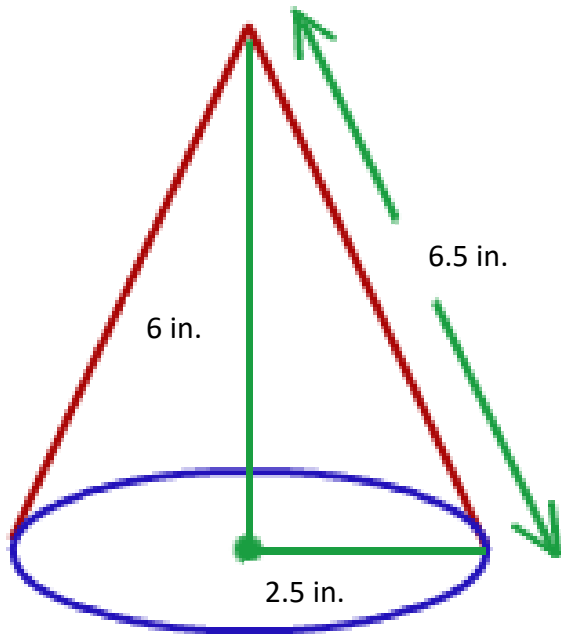


Volume: \_\_\_\_\_ cubic inches

Surface Area: \_\_\_\_\_ square inches

Question 09

Find the volume and surface area of the figure below. Use 3.14 for  $\pi$ . Round to the nearest tenth.

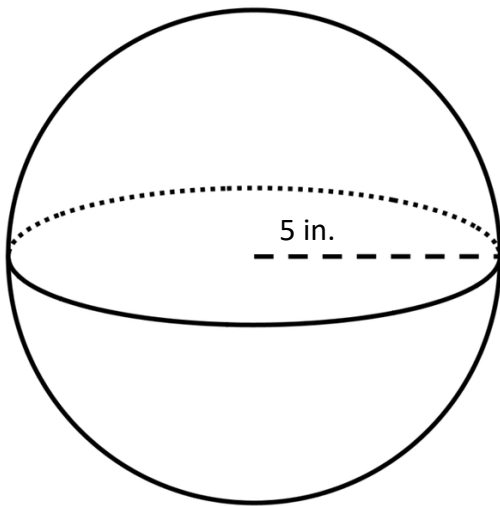


Volume: \_\_\_\_\_ cubic inches

Surface Area: \_\_\_\_\_ square inches

Question 10

Find the volume and surface area of the figure below. Use 3.14 for  $\pi$ . Round to the nearest tenth.



Volume: \_\_\_\_\_ cubic inches

Surface Area: \_\_\_\_\_ square inches

## BONUS 01

You are the manager of a large doughnut shop. You make doughnuts that are 6 inches in diameter with a 1-inch diameter hole in the middle. On the top of every doughnut, you want to put a  $\frac{1}{8}$  inch layer of chocolate frosting. You plan on making 2,000 doughnuts next week. You buy chocolate frosting in 2-gallon containers (a gallon is 231 cubic inches). You need to calculate how many containers of chocolate frosting to order for next week.



Answer: \_\_\_\_\_ containers of chocolate frosting