

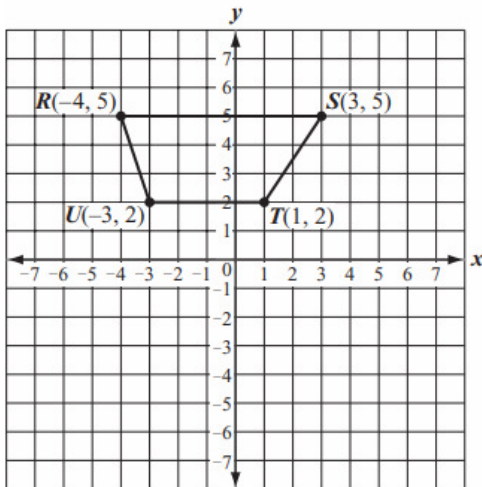
Name.....Period.....

The height of right circular cylinder P is twice the height of right circular cylinder Q. The radii of the cylinders are of equal length.

What number times the volume of cylinder Q is equal to the volume of cylinder P?

- A. 2
- B. 4
- C. 6
- D. 8

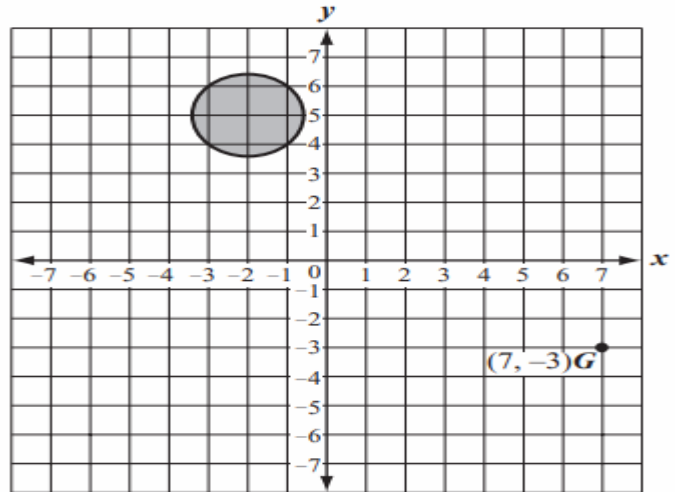
22 Trapezoid $RSTU$ is shown on the coordinate grid below.



Trapezoid $RSTU$ will be reflected over the x -axis to create trapezoid $R'S'T'U'$. What will be the coordinates of point R' , the image of point R after the reflection?

- A. (4, 5)
- B. (4, -5)
- C. (-4, 5)
- D. (-4, -5)

10 Point G is shown on the coordinate grid below.



Point H is located in the shaded region of the grid. Which of the following could be the midpoint of \overline{GH} ?

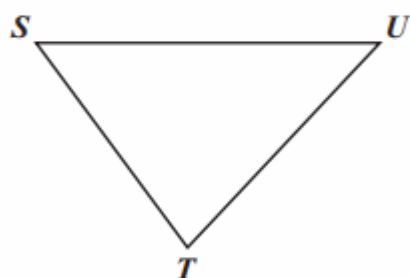
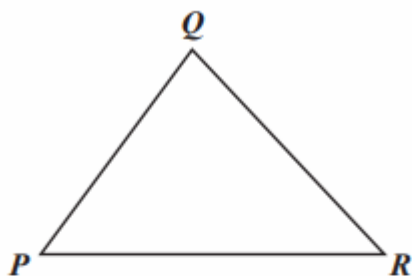
- A. (1, 1)
- B. (2, 0)
- C. (3, 1)
- D. (4, 0)

The core of a baseball is in the shape of a sphere. The diameter of the core is 2.06 centimeters.

Which of the following is closest to the volume of the core?

- A. 2.57 cubic centimeters
- B. 4.58 cubic centimeters
- C. 12.94 cubic centimeters
- D. 36.62 cubic centimeters

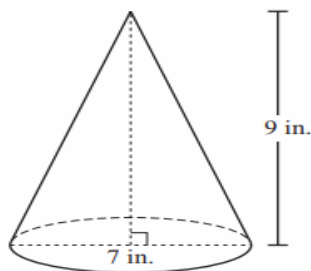
In the diagram below, $\triangle PQR \cong \triangle STU$.



Which of the following equations **must** be true?

- A. $QR = TU$
- B. $m\angle P = m\angle U$
- C. $QP + PR = TU + US$
- D. $m\angle P + m\angle Q = m\angle U + m\angle T$

A right circular cone and its dimensions are shown in the diagram below.



Which of the following is closest to the volume of the cone?

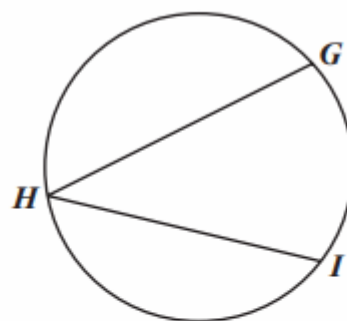
- A. 66 in.^3
- B. 115 in.^3
- C. 132 in.^3
- D. 462 in.^3

A flying disc in the shape of a circle has a circumference of 8π inches.

What is the radius of the flying disc?

- A. 4 inches
- B. 8 inches
- C. 16 inches
- D. 64 inches

The diagram below shows $\angle GHI$ inscribed in a circle.

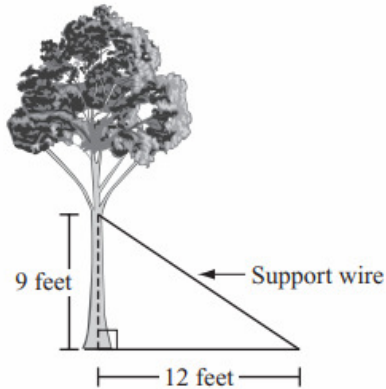


The measure of \widehat{GI} is 80° . What is the measure of $\angle GHI$?

- A. 40°
- B. 80°
- C. 120°
- D. 160°

2.

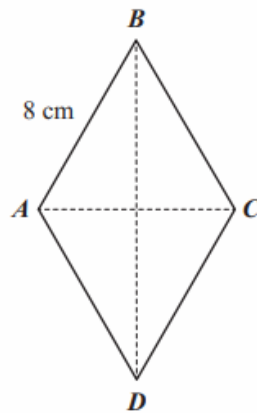
A support wire is attached to a tree at a height of 9 feet. The wire is anchored to the ground, as shown in the diagram below.



Based on the dimensions in the diagram, what is the length, in feet, of the support wire?

3.

The diagram below shows rhombus $ABCD$ with a side length of 8 centimeters.



- a. What is the perimeter, in centimeters, of rhombus $ABCD$? Show or explain how you got your answer.

The measure of $\angle ABC$ is 60° .

- b. What is the length, in centimeters, of diagonal \overline{AC} ? Show or explain how you got your answer.
- c. What is the length, in centimeters, of diagonal \overline{BD} ? Show or explain how you got your answer.
- d. What is the area, in square centimeters, of rhombus $ABCD$? Show or explain how you got your answer.