

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

Line  $g$  has a slope of  $-\frac{4}{7}$ . Which of the following equations represents a line that is **perpendicular** to line  $g$ ?

- A.  $y = -\frac{7}{4}x$
- B.  $y = -\frac{4}{7}x$
- C.  $y = \frac{4}{7}x$
- D.  $y = \frac{7}{4}x$

A right circular cylinder has a diameter of 10 inches and a height of 3 inches. What is the volume, in cubic inches, of the cylinder?

- A.  $15\pi$
- B.  $75\pi$
- C.  $225\pi$
- D.  $300\pi$

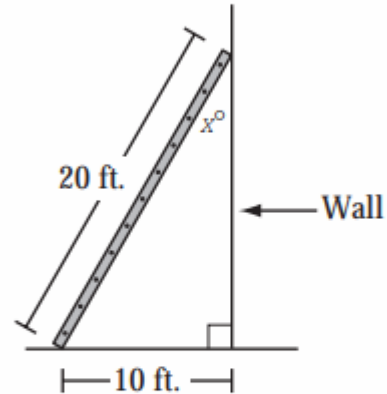
On a coordinate grid, point  $H$  is the midpoint of  $\overline{TW}$ .

- Point  $H$  has coordinates  $(4, -4)$ .
- Point  $W$  has coordinates  $(12, 2)$ .

What are the coordinates of point  $T$ ?

- A.  $(16, -2)$
- B.  $(8, -1)$
- C.  $(-4, -10)$
- D.  $(-8, -6)$

The diagram below shows a 20-foot ladder leaning against a wall. The bottom of the ladder is 10 feet from the base of the wall.



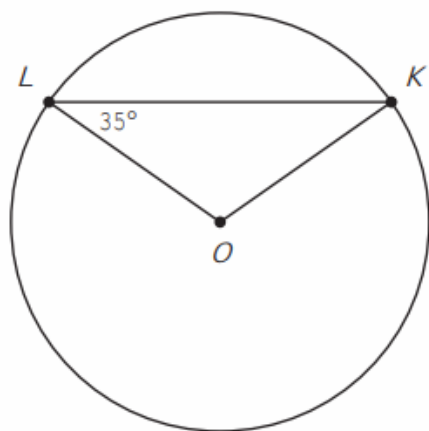
Based on the dimensions in the diagram, what is the value of  $x$ ?

- A. 15
- B. 30
- C. 45
- D. 60

A right triangle has one angle that measures  $70^\circ$ . What is the measure of the other acute angle in the triangle?

- A.  $10^\circ$
- B.  $20^\circ$
- C.  $30^\circ$
- D.  $40^\circ$

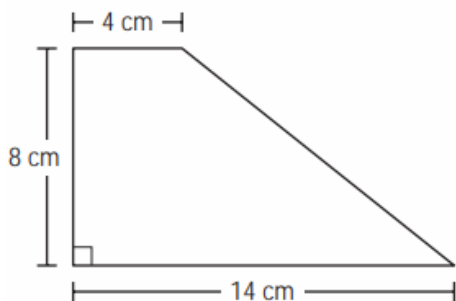
The diagram below shows circle  $O$  with radii  $\overline{OL}$  and  $\overline{OK}$ .



The measure of  $\angle OLK$  is  $35^\circ$ .  
What is the measure of  $\angle LOK$ ?

- A.  $70^\circ$
- B.  $90^\circ$
- C.  $110^\circ$
- D.  $130^\circ$

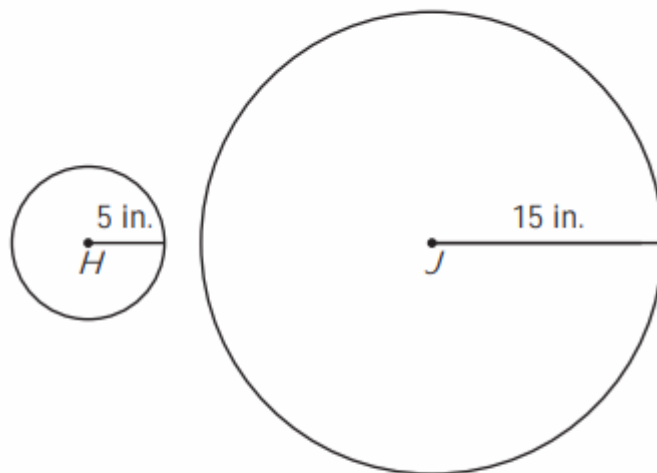
The diagram below shows a trapezoid and some of its dimensions.



What is the area, in square centimeters, of the trapezoid?

- A. 56
- B. 72
- C. 112
- D. 144

- 37** In the diagram below, circle  $H$  has a radius of 5 inches, and circle  $J$  has a radius of 15 inches.



The area of circle  $J$  is how many times the area of circle  $H$ ?

- A. 3
- B. 5
- C. 7
- D. 9

The perimeter of a square is 48 inches. What is the area, in square inches, of the square?