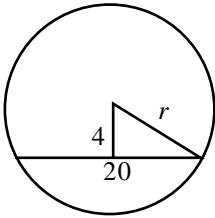




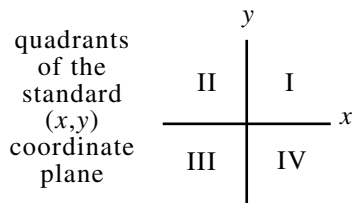
## Mini-Test 2

DO YOUR FIGURING HERE.

11. A chord 20 inches long is 4 inches from the center of a circle, as shown below. What is the radius of the circle, to the nearest tenth of an inch?



- A. 4.0  
 B. 10.7  
 C. 10.8  
 D. 11.0  
 E. 21.6
12. Workers for a roofing company lean a 20-foot ladder against a building. The side of the building is perpendicular to the level ground so that the base of the ladder is 5 feet away from the base of the building. To the nearest foot, how far up the building does the ladder reach?
- F. 5  
 G. 10  
 H. 18  
 J. 19  
 K. 20
13. Point  $C$  is to be graphed in a quadrant of the standard  $(x,y)$  coordinate plane below.



If the  $x$ -coordinate and the  $y$ -coordinate of point  $C$  are to have the same signs, then point  $C$  must be located in:

- A. Quadrant I or II.  
 B. Quadrant I or III.  
 C. Quadrant I or IV.  
 D. Quadrant II or IV.  
 E. Quadrant III or IV.

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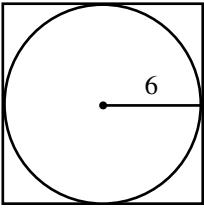




DO YOUR FIGURING HERE.

14. What is the  $x$ -coordinate of the point in the standard  $(x,y)$  coordinate plane at which the two lines  $y = 2x - 1$  and  $y = x + 2$  intersect?
- F.  $-2$   
G.  $0$   
H.  $1$   
J.  $3$   
K.  $4$

15. A square is circumscribed about a circle with a 6 foot radius, as shown below. What is the area of the square, in square feet?



- A.  $12$   
B.  $36$   
C.  $72$   
D.  $144$   
E.  $288$
16. If a rectangle measures 12 meters by 16 meters, what is the length, in meters, of the diagonal of the rectangle?
- F.  $14$   
G.  $18$   
H.  $20$   
J.  $22$   
K.  $28$
17. Which of the following is a set of all real numbers  $x$ , such that  $x + 1 > x + 8$  ?
- A. The set containing zero  
B. The set containing all real numbers  
C. The set containing all positive numbers  
D. The set containing all negative numbers  
E. The empty set

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18. For all pairs of real numbers  $P$  and  $Q$  where  $P = 2Q + 9$ ,  $Q = ?$

F.  $2P - 9$

G.  $\frac{P + 9}{2}$

H.  $\frac{P}{2} + 9$

J.  $\frac{P}{2} - 9$

K.  $\frac{P - 9}{2}$

**DO YOUR FIGURING HERE.**

19. The ratio of the radii of two circles is 5:12. What is the ratio of their circumferences?

- A. 5:12  
B.  $5:12\pi$   
C. 10:12 $\pi$   
D.  $10\pi:24$   
E. 25:144

20. Of the 777 graduating seniors in a certain high school, approximately  $\frac{1}{3}$  are going to a trade school, and approximately  $\frac{2}{7}$  of those going to a trade school are going to an art or design institute. Which of the following is the closest estimate for the number of graduating seniors going to an art or design institute?

- F. 74  
G. 75  
H. 110  
J. 219  
K. 256

**END OF MINI-TEST TWO**

**STOP! DO NOT GO ON TO THE NEXT PAGE  
UNTIL TOLD TO DO SO.**

