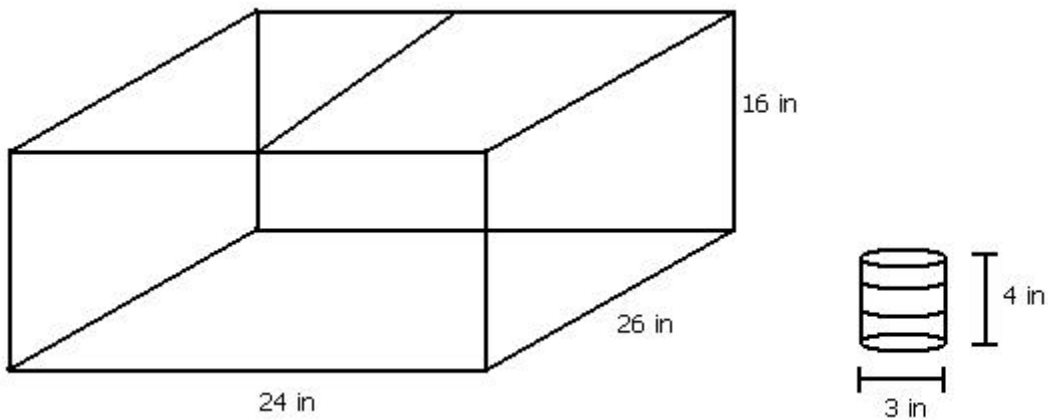


## Test #10

1. Gary, a clerk at a local grocery store, is packing up canned vegetables for a food drive. The measurements of the box and can of vegetables are illustrated below. What is the most number of cans Gary could possibly fit into the box?

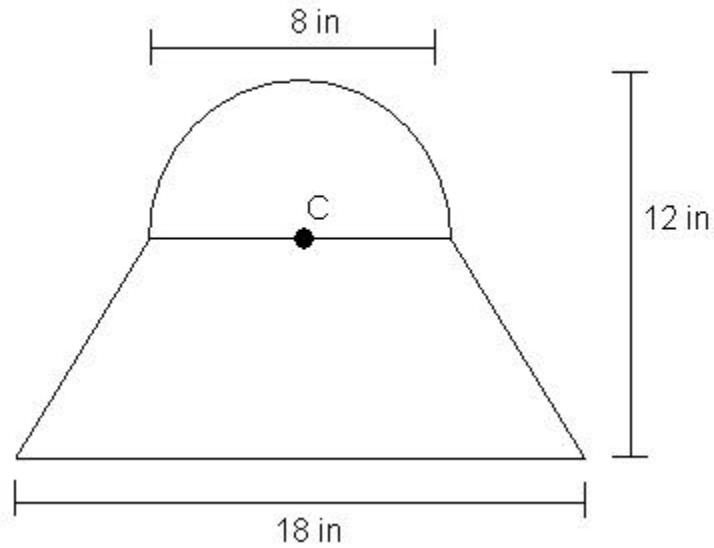
Remember: Volume of a right cylinder =  $\pi * r^2 * h$



- a) 277 cans
- b) 88 cans
- c) 1664 cans
- d) 353 cans

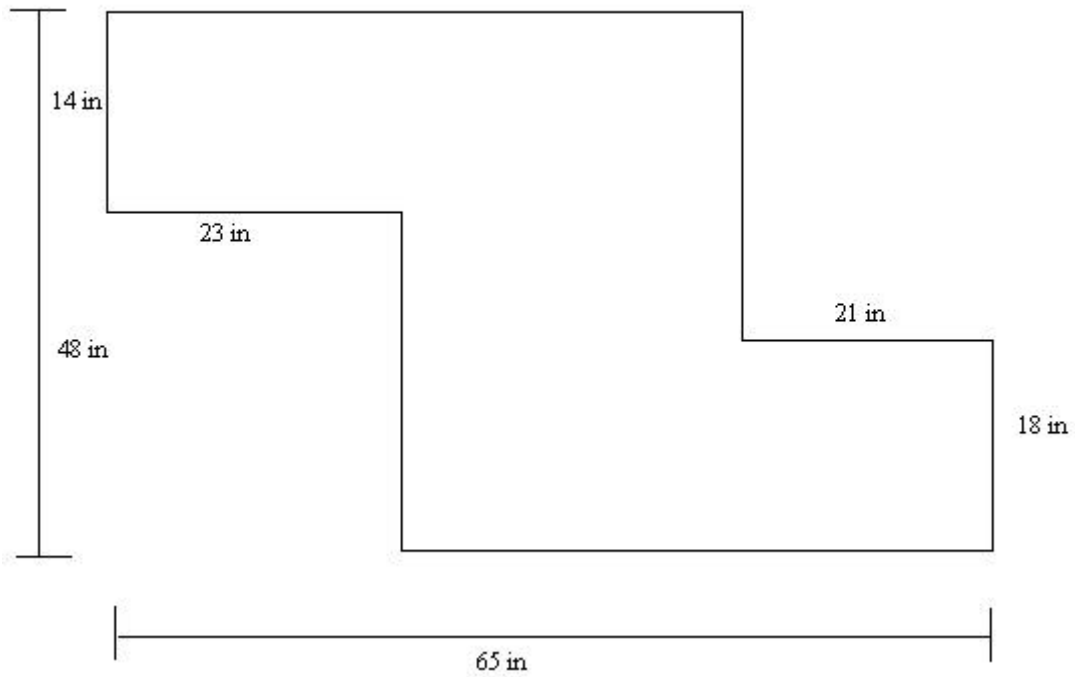
2. Find the approximate area of the figure below. Point C represents the center of the circle.

Remember: Area of a trapezoid =  $\frac{1}{2} * (b_1 + b_2) * h$   
Area of a circle =  $\delta * r^2$   
Use  $\delta = 3.14$



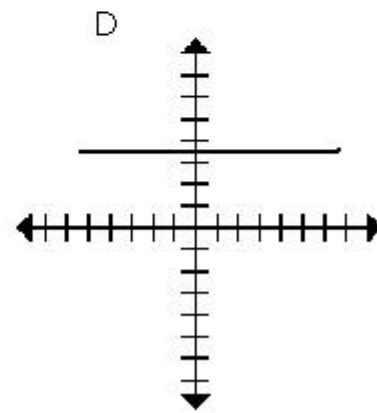
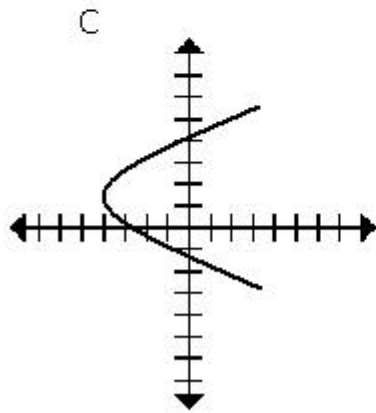
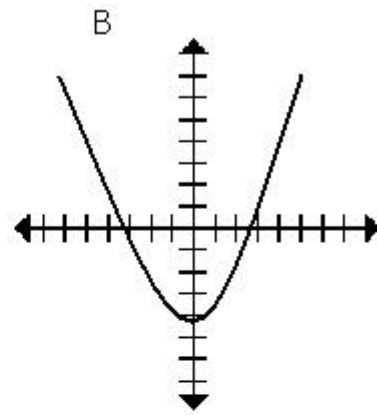
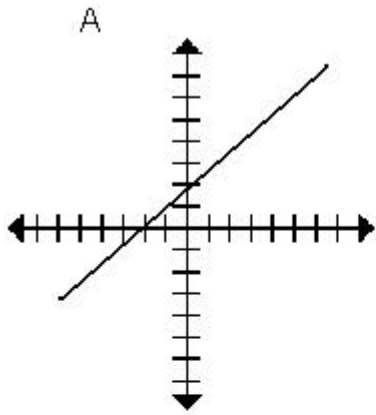
- a)  $97 \text{ in}^2$
- b)  $154 \text{ in}^2$
- c)  $181 \text{ in}^2$
- d)  $129 \text{ in}^2$

3. Find the area of the object below. Remember: Area of a square =  $b * h$



- a)  $2086 \text{ in}^2$
- b)  $1330 \text{ in}^2$
- c)  $2002 \text{ in}^2$
- d)  $1708 \text{ in}^2$

4. Which of the following lines does not represent a function?

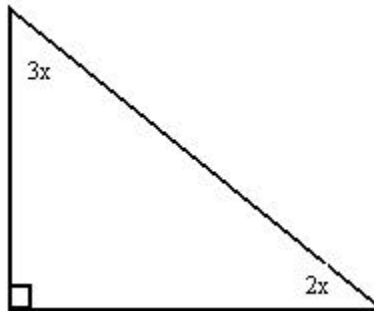


- a) A  
b) B  
c) C  
d) D

5. What number is 65% of 200?

- a) 120
- b) 130
- c) 145
- d) 65

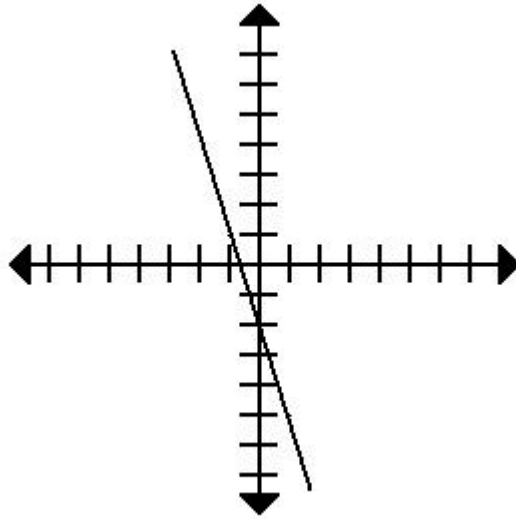
6. Solve for  $x$ .



$x =$

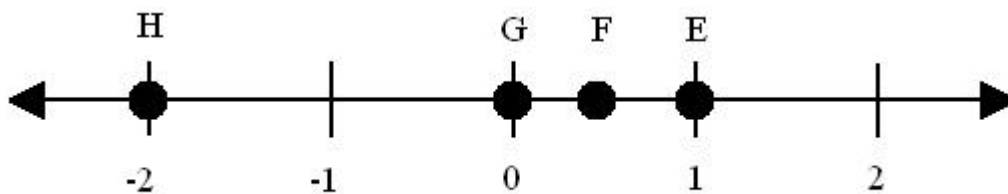
- a)  $18^\circ$
- b)  $24^\circ$
- c)  $12^\circ$
- d)  $36^\circ$

7. Which of the following linear equations is represented by the line below?



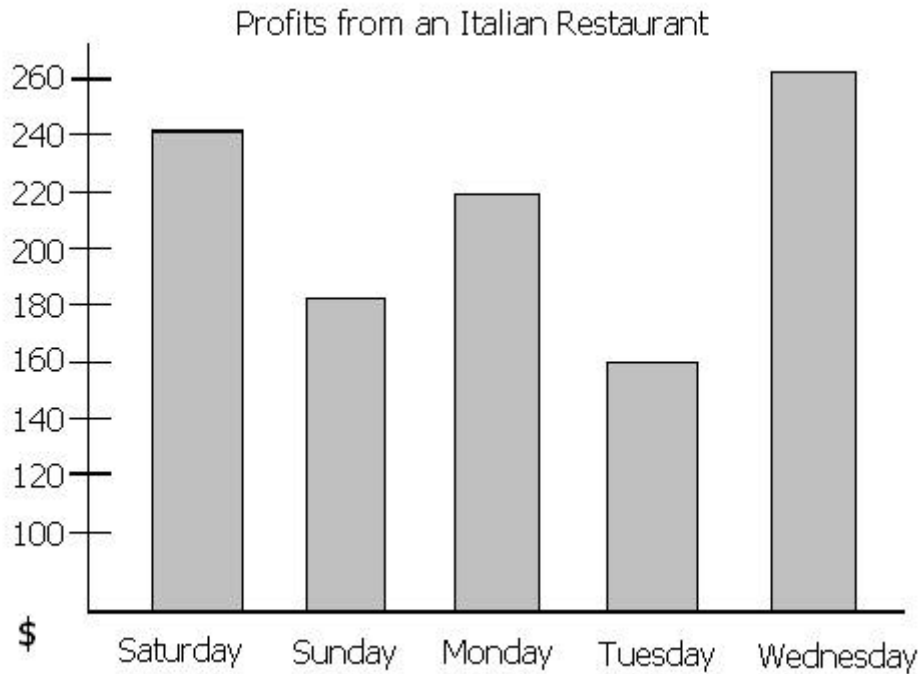
- a)  $y = -2x - 3$
- b)  $y = -3x - 2$
- c)  $y = 2x + 2$
- d)  $y = 4x - 2$

8. On the number line below indicate the letter that represents the number that when added to itself becomes smaller.



- a) E
- b) F
- c) G
- d) H

9. The following is a graph depicting the profits from an area Italian Restaurant. Use these profits to answer the question below.



What is the mean profit from this graph?

- a) \$210
- b) \$220
- c) \$212
- d) \$260

10. Simplify using the order of operations.

$$3^2 - 12 * 10 \div 20 + 6$$

- a)  $-111/26$
- b) 9
- c)  $9/2$
- d) -3

11. Indicate the next number in the pattern below.

1      8      27      64      125      216      \_\_\_\_\_

- a) 341
- b) 342
- c) 343
- d) 344

12. Transistor City is offering a huge, in store clearance sale. It is offering 45% off of everything in the store, and an additional 15% off the already reduced price if you buy this weekend. The store is also offering an online discount of 60% off everything on the website, though there is a \$29.99 shipping and handling fee. Which is the better bargain if Greg is looking to purchase a television that is \$465.00?

- a) in store clearance sale
- b) online discount
- c) same price
- d) cannot be determined

13. In the number listed below, which number holds the tens place value?

**25,794,038,451.021478**

- a) 5
- b) 0
- c) 1
- d) 2

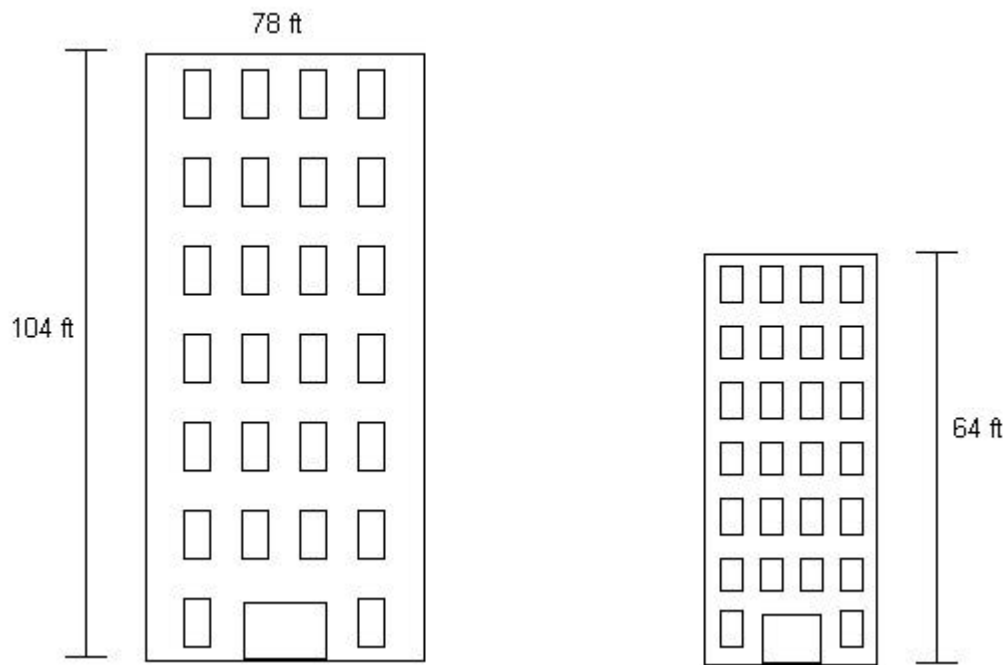
14. Sarah has two quarters and two dice. What is the probability of her flipping both quarters and getting two tails and then rolling an eight with the pair of dice?

- a)  $5/24$
- b)  $5/144$
- c)  $5/72$
- d)  $5/36$

15. The Gilbert High School basketball team won 5 of their first 7 games. How many games should they expect to win if they play 28 games in the season?

- a) 9
- b) 21
- c) 18
- d) 20

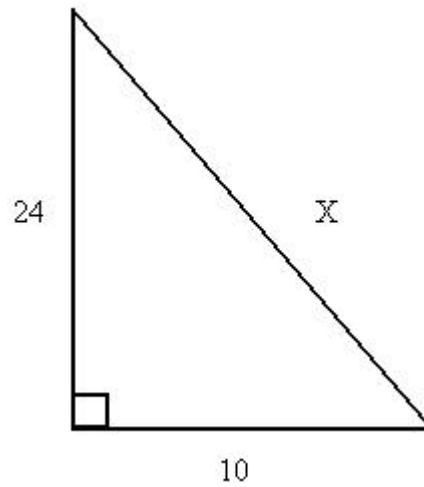
16. Below are drawings of two apartment buildings in downtown St. Louis. They are similarly proportioned, but different in size.



What is the length of the smaller building?

- a) 38 ft
- b) 85 ft
- c) 48 ft
- d) 24 ft

17. Find  $x$  by using the Pythagorean Theorem ( $a^2 + b^2 = c^2$ )



(illustration not to scale)

- a) 38
- b) 676
- c) 34
- d) 26

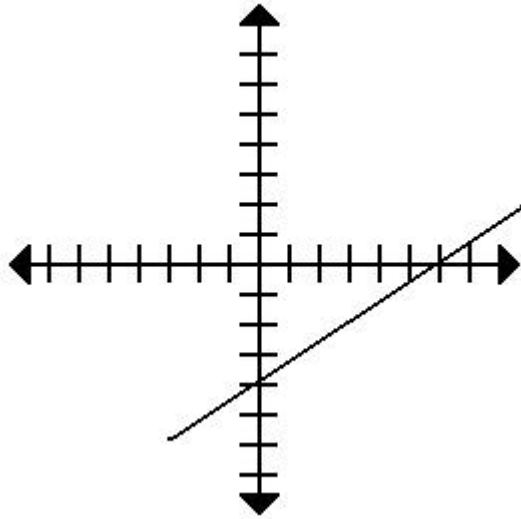
18. Put the number 9700000 in scientific notation.

- a)  $97 * 10^{-5}$
- b)  $9.7 * 10^7$
- c)  $97 * 10^5$
- d)  $9.7 * 10^6$

19. Put the number  $3.5 * 10^3$  in standard form.

- a) 350
- b) 42.875
- c) 35
- d) 3500

20. Find the slope of the line.



- a) -3
- b)  $\frac{2}{3}$
- c) 6
- d) 2

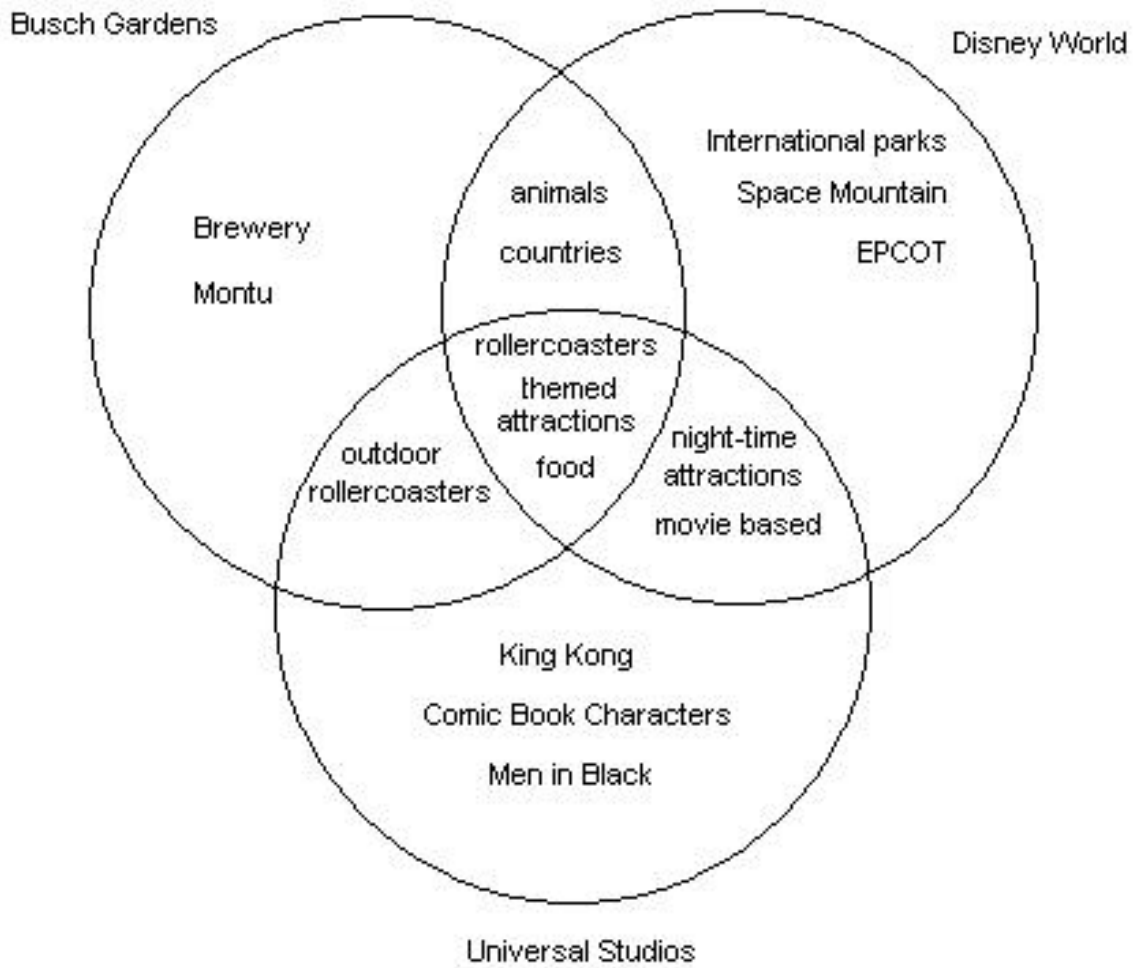
21. Solve for x.

$$3x - 4 = 7x + 4$$

x =

- a) -2
- b) 0
- c) -4
- d) 4

22. Below is a Venn Diagram depicting some of the attractions located within three theme parks. Use the diagram to answer the question.



What theme park has animals, themed attractions and outdoor roller coasters?

- Disney
- Busch Gardens
- Universal Studios
- none of the above