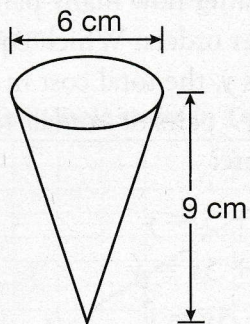


39. A cone-shaped paper cup has a diameter of 6 centimeters and a height of 9 centimeters.

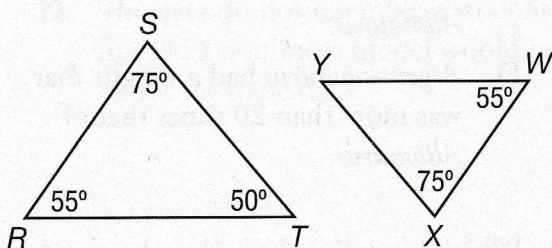


Approximately how many cubic centimeters of water can the cup hold?

- A.  $85 \text{ cm}^3$       C.  $339 \text{ cm}^3$   
 B.  $254 \text{ cm}^3$       D.  $1,017 \text{ cm}^3$
40. Which equation does **not** represent a linear function?

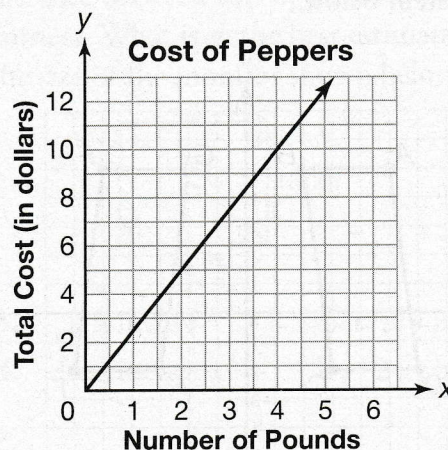
- A.  $y = -\frac{1}{2}x$       C.  $y = -2x - 2$   
 B.  $y = -x - 2$       D.  $y = -x^2$

41.  $\triangle RST$  is similar to  $\triangle WXY$  because two pairs of corresponding angles are congruent. Which is **not** true?



- A. The sum of the angle measures of  $\triangle WXY$  is  $180^\circ$ , so  $m\angle Y = 50^\circ$ .  
 B.  $m\angle R = m\angle W = 55^\circ$   
 C.  $m\angle S = m\angle X = 75^\circ$   
 D.  $m\angle T = m\angle W = 55^\circ$

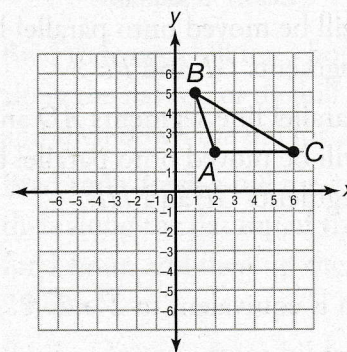
42. Leo is buying peppers from a farm stand. The graph below shows the cost.



What does the slope of the graph represent?

- A. the unit price, \$0.40 per pound of peppers  
 B. the unit price, \$2.50 per pound of peppers  
 C. the number of pounds Leo bought, 4 pounds of peppers  
 D. the total amount Leo spent, \$10.00

43. Triangle  $ABC$  below will be rotated  $90^\circ$  clockwise about the origin.



What will be the coordinates of the vertices of the dilated image,  $\triangle A'B'C'$ ?

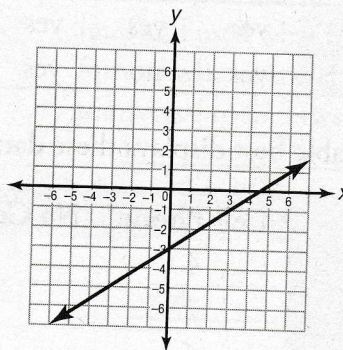
- A.  $A'(2, -2)$ ,  $B'(5, -1)$ ,  $C'(2, -6)$   
 B.  $A'(2, 2)$ ,  $B'(-5, 1)$ ,  $C'(-6, -2)$   
 C.  $A'(-2, 2)$ ,  $B'(-5, 1)$ ,  $C'(-2, 6)$   
 D.  $A'(-2, -2)$ ,  $B'(-1, -5)$ ,  $C'(-6, -2)$

44. Compare the rates of change for the two linear functions represented below.

Function 1

$x$	$y$
-6	-2
-3	0
0	2
3	4
6	6

Function 2



Which statement about the two functions is true?

- A. Both functions have the same rate of change.  
 B. Function 1 has a greater rate of change than Function 2.  
 C. Function 2 has a greater rate of change than Function 1, and both functions have different  $y$ -intercepts.  
 D. Function 2 has a greater rate of change than Function 1, but both functions have the same  $y$ -intercept.
45. Calliope and Matt both walk dogs to earn extra money, and each charges an hourly rate. The equation  $y = 8.25x$  shows how to calculate  $y$ , the total charge in dollars, for Calliope to walk a dog for  $x$  hours. The table below shows the information for Matt.

Matt's Charges

$x$	2	4	6	8
$y$	17	34	51	68

Which statement is true?

- A. Calliope's hourly rate is \$0.25 cheaper than Matt's.  
 B. Matt's hourly rate is \$0.25 cheaper than Calliope's.  
 C. Calliope's hourly rate is \$6.25 cheaper than Matt's.  
 D. Calliope and Matt charge the same hourly rate.

46. Eight students in a class were asked two questions. They were asked if they have a personal cell phone and they were asked if they have a curfew.

<b>Cell phone?</b>	yes	yes	yes	yes	no	yes	yes	no
<b>Curfew?</b>	yes	no	yes	yes	no	yes	yes	no

Which two-way table best displays these data?

A.

	Cell Phone	No Cell Phone	Total
Curfew	4	1	5
No Curfew	2	1	3
Total	6	4	8

B.

	Cell Phone	No Cell Phone	Total
Curfew	5	0	5
No Curfew	2	1	3
Total	7	1	8

C.

	Cell Phone	No Cell Phone	Total
Curfew	5	0	5
No Curfew	1	2	3
Total	6	2	8

D.

	Cell Phone	No Cell Phone	Total
Curfew	4	0	4
No Curfew	4	0	4
Total	8	0	8

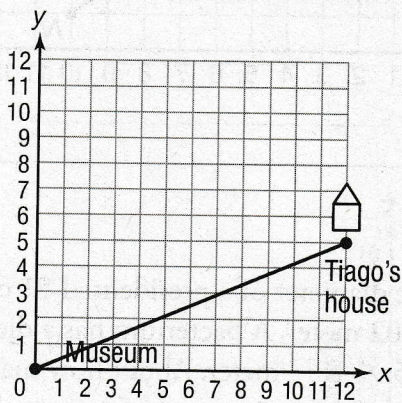
47. Which best describes the graphs of the line that passes through  $(0, 2)$  and  $(6, 4)$  and the line that passes through  $(2, 1)$  and  $(5, 7)$ ?
- The lines are coincident.
  - The lines intersect in exactly one point.
  - The lines are parallel.
  - The lines lie in the same plane, but never intersect.

48. Which best describes the solution for this equation?

$$0.5(4x + 3) = 5x - 2.5$$

- A.  $x = 0.75$
- B.  $x = 1.\bar{3}$
- C.  $x = 4$
- D.  $x = 12$

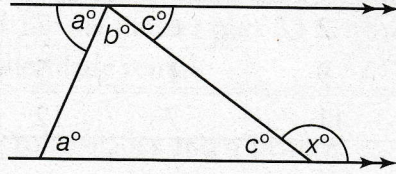
49. On the map of Franklinton below, the museum is at the origin  $(0, 0)$  and each unit represents 1 kilometer.



Tiago lives 5 kilometers north and 12 kilometers east of the museum. If he rides his bike directly from his house to the museum one day, how far will he ride his bike?

- A. 7 kilometers
- B. 13 kilometers
- C. 17 kilometers
- D. 84.5 kilometers

50. The triangle below has angles measuring  $a$ ,  $b$ , and  $c$  degrees and an exterior angle measuring  $x^\circ$ . Carlos drew two parallel lines and used what he knows about angles formed when parallel lines are cut by a transversal to find two other angle measures.



Using the information above, which expression is equivalent to  $x^\circ$ ?

- A.  $180^\circ - a^\circ$
- B.  $180^\circ - b^\circ$
- C.  $a^\circ + b^\circ$
- D.  $a^\circ + c^\circ$