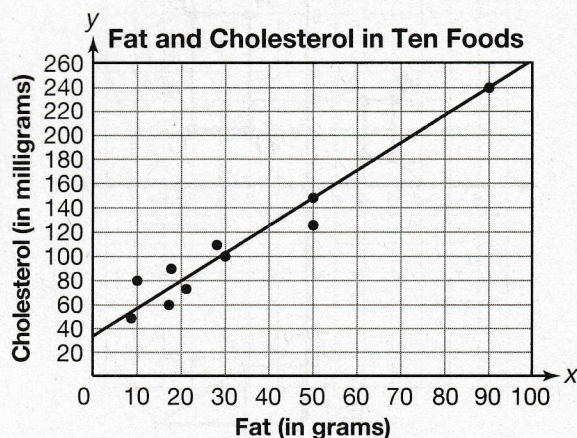


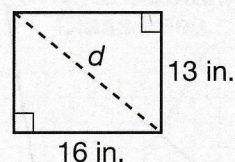
31. Tim compared the number of grams of fat to the number of milligrams of cholesterol in his 10 favorite foods for a health project. He created the scatter plot shown below.



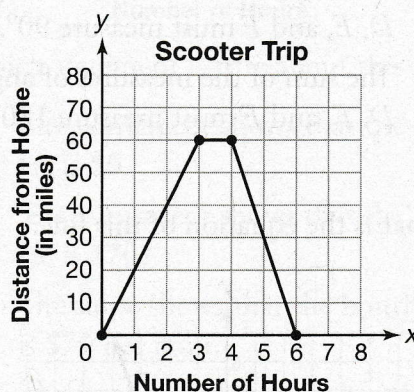
Which statement is true about the line of best fit?

- A. The line comes close to nearly all points, so it is a very good model for the data.
- B. The line shows the correct association, but does not come close to most points.
- C. The scatter plot shows no association, so a line should not be used to model the data.
- D. The data do not resemble a straight line, so a nonlinear model would be better for these data.

32. The size of the rectangular display for a computer monitor is given as  $d$ , the distance between two opposite screen corners. What is  $d$ , the best estimate of the size of the monitor shown below?



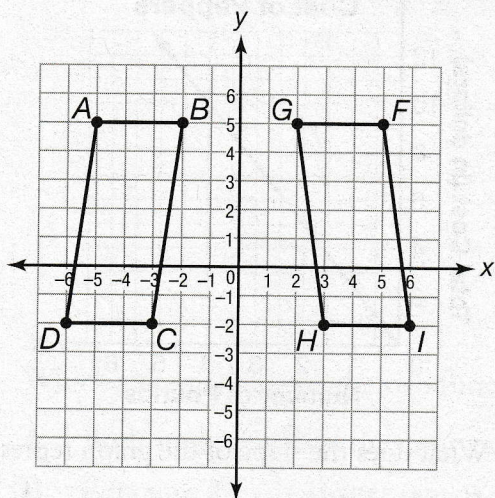
- A. 9.3 inches                      C. 29 inches
- B. 20.6 inches                  D. 213 inches
33. The graph shows the distance that Brad traveled to and from his home on a motorized scooter. Which best describes what is shown by the graph?



- A. Brad rode up a hill for 3 hours, then along the flat top of the hill for 1 hour, and then down the hill for 2 hours.
- B. Brad rode down a hill for 3 hours, then along the flat top of the hill for 1 hour, and then up the hill for 2 hours.
- C. Brad rode away from his home for 3 hours, then took a break for 1 hour, and then rode toward his home for 2 hours.
- D. Brad rode toward his home for 3 hours, then stayed at his home for 1 hour, and then rode away from his home for 2 hours.



34. Parallelogram  $ABCD$  and parallelogram  $FGHI$  are shown on the coordinate system below.



If parallelogram  $ABCD$  is reflected over the  $y$ -axis so it completely covers parallelogram  $FGHI$ , which will be true?

- A. Parallel line segments  $AB$  and  $DC$  will be moved onto parallel line segments  $GF$  and  $HI$ .
- B. Parallel line segments  $AB$  and  $DC$  will be moved onto parallel line segments  $GH$  and  $FI$ .
- C. Parallel line segments  $AD$  and  $BC$  will be moved onto parallel line segments  $GF$  and  $FI$ .
- D. Parallel line segments  $AD$  and  $BC$  will be moved onto parallel line segments  $GF$  and  $HI$ .

35. Which is equivalent to  $2^4 \cdot 2^{-6}$ ?

- A.  $-4$
- B.  $-\frac{1}{4}$
- C.  $\frac{1}{4}$
- D.  $4$

36. During a sale at an online shoe store, each pair of sandals costs \$15. The store charges a shipping and handling fee of \$5, no matter how many pairs of sandals a customer orders. Which equation best represents  $y$ , the total cost in dollars of buying  $x$  pairs of sandals from this online store?

- A.  $15x + 5 = y$
- B.  $15x + 5x = y$
- C.  $15 + 5x = y$
- D.  $15 + 5 + x = y$

37. William is writing a report on dinosaurs. He learns that the plant-eating dinosaur *Argentinosaurus* could grow to a weight of about  $2 \times 10^5$  pounds. The meat-eating dinosaur *Allosaurus* could grow to a weight of about  $9 \times 10^3$  pounds. Which is an accurate comparison of the weights of these two dinosaurs?

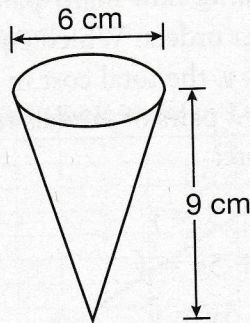
- A. *Argentinosaurus* weighed about 200 times as much as *Allosaurus*.
- B. *Allosaurus* weighed about 200 times as much as *Argentinosaurus*.
- C. *Argentinosaurus* had a weight that was less than 20 times that of *Allosaurus*.
- D. *Argentinosaurus* had a weight that was more than 20 times that of *Allosaurus*.

38. Which is a rational number that can be written as a decimal in which one or more non-zero digits repeat?

- A. 23.5%                      C.  $\sqrt{3}$
- B.  $\frac{5}{6}$                           D.  $\pi$

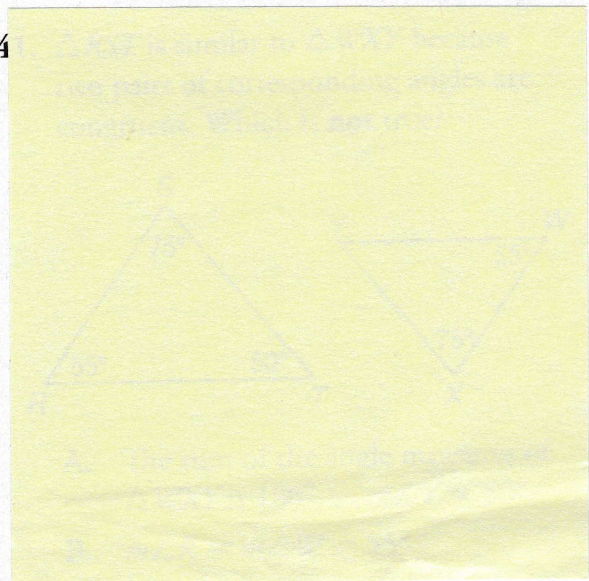


39. A cone-shaped paper cup has a diameter of 6 centimeters and a height of 9 centimeters.



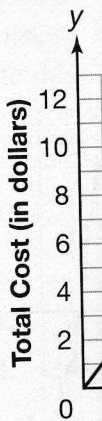
Approximately how many cubic centimeters of water can the cup hold?

- 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.  $y = -x^2$



- C.  $m\angle S = m\angle X = 75^\circ$   
 D.  $m\angle T = m\angle W = 55^\circ$

42. Leo is buying...  
 The graph...



What do...

- A. the...  
 of p...  
 B. the...  
 of p...  
 C. the...  
 4 p...  
 D. the...

43. Triangle...  
 clockwise...

What v...  
 vertices...

- A.  $A'$   
 B.  $A''$   
 C.  $A'''$