



Solutions

**North Carolina  
READY End-of-Course  
Assessment  
NC Math 1  
2016–2017**

**Released Items**

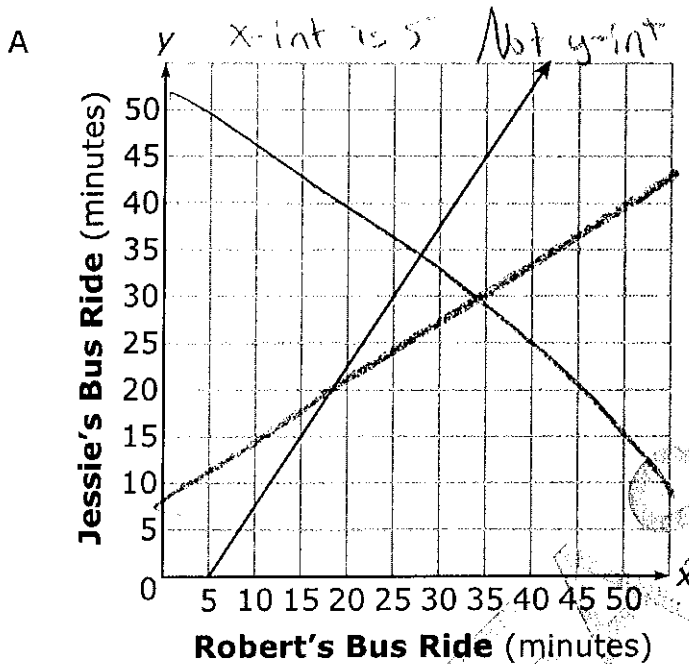


Academic Services and Instructional Support  
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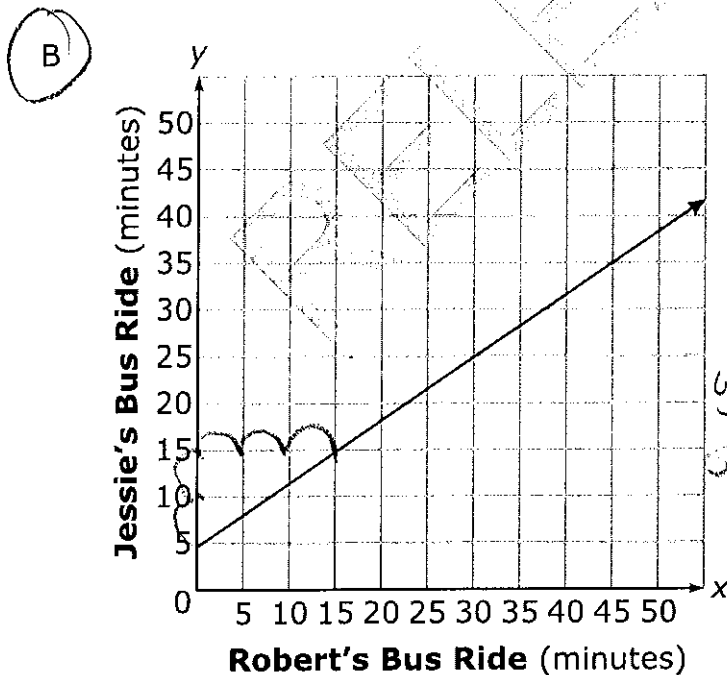


- 1 Jessie's bus ride to school is 5 minutes more than  $\frac{2}{3}$  the time of Robert's bus ride. Which graph shows the possible times of Jessie's and Robert's bus rides?



Handwritten equations for Graph A:  
 $J = \frac{2}{3}R + 5$   
 slope =  $\frac{2}{3}$   
 $y\text{-int} = 5$

Answer must be B



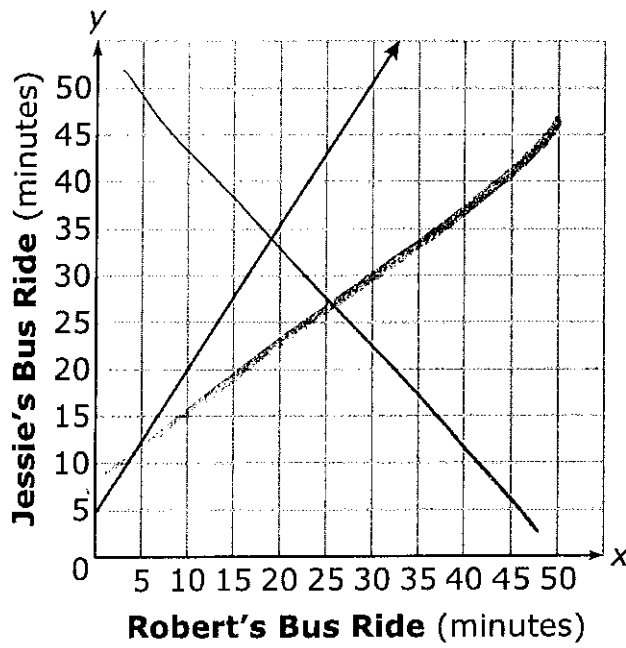
Answer choices C and D are on the following page.



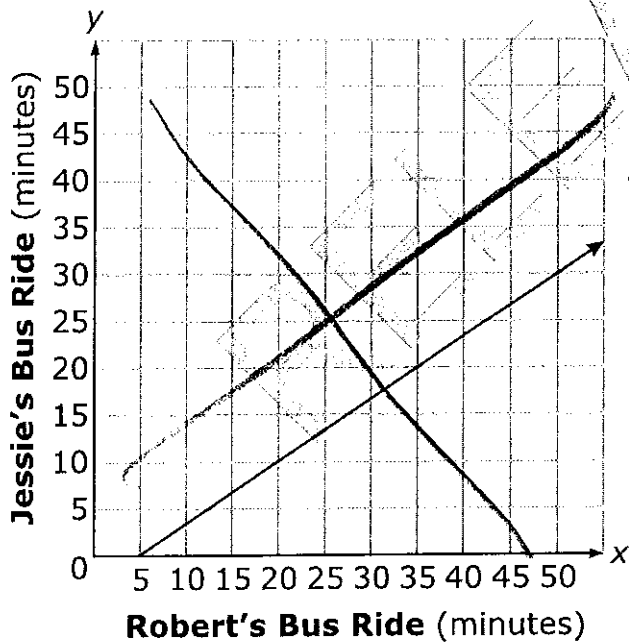
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C



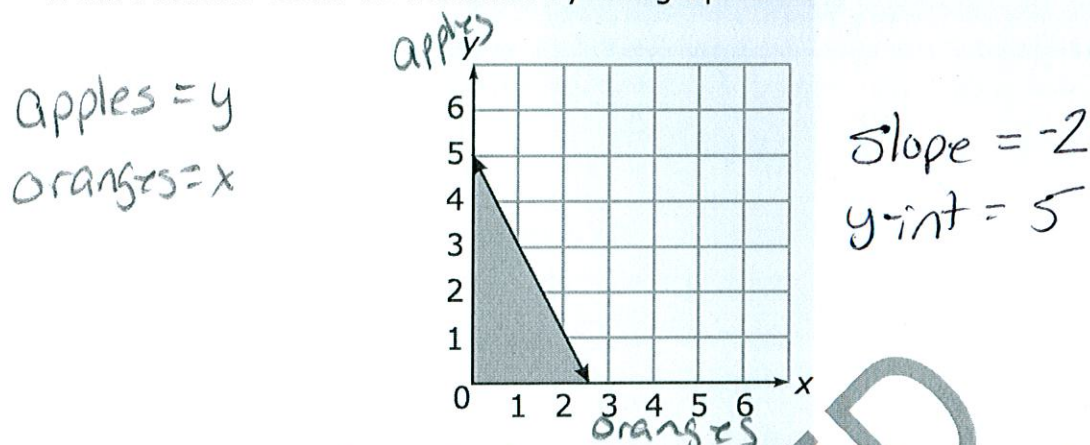
D







- 2 What scenario could be modeled by the graph below?



- A The number of pounds of apples,  $y$ , minus two times the number of pounds of oranges,  $x$ , is at most 5.  $y - 2x \leq 5$   $y \leq 2x + 5$
- B The number of pounds of apples,  $y$ , minus half the number of pounds of oranges,  $x$ , is at most 5.  $y - \frac{1}{2}x \leq 5$   $y \leq \frac{1}{2}x + 5$
- ☒ C The number of pounds of apples,  $y$ , plus two times the number of pounds of oranges,  $x$ , is at most 5.  $y + 2x \leq 5$   $y \leq -2x + 5$
- D The number of pounds of apples,  $y$ , plus half the number of pounds of oranges,  $x$ , is at most 5.  $y + \frac{1}{2}x \leq 5$   $y \leq -\frac{1}{2}x + 5$

- 3 Which expression is equivalent to  $t^2 - 36$ ?

☒ A  $(t - 6)(t - 6)$

☒ B  $(t + 6)(t - 6)$

☒ C  $(t - 12)(t - 3)$

☒ D  $(t - 12)(t + 3)$

Handwritten work for option B:

$$\begin{array}{cc|c} t & -6 & \\ \hline t & t^2 & -6t \\ -6 & -6t & 36 \end{array} = t^2 - 12t + 36$$

Handwritten work for option D:

$$\begin{array}{cc|c} t & 6 & \\ \hline t & t^2 & 6t \\ -6 & 6t & -36 \end{array} = t^2 - 36$$

Handwritten work for option C:

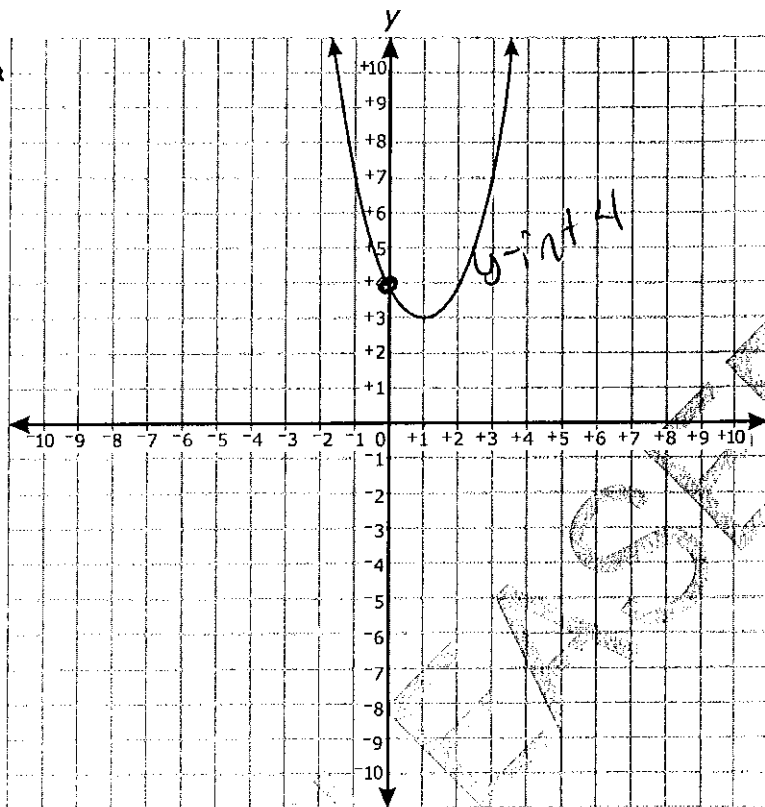
$$(t - 12)(t - 3) = t^2 - 3t - 12t + 36 = t^2 - 15t + 36$$

Handwritten work for option D:

$$(t - 12)(t + 3) = t^2 + 3t - 12t - 36 = t^2 - 9t - 36$$



- 4 Which is the graph of the function  $f(x) = 4x^2 - 8x + 7$ ?



y-intercept is 7

the only graph that has a y-int of 7 is D.

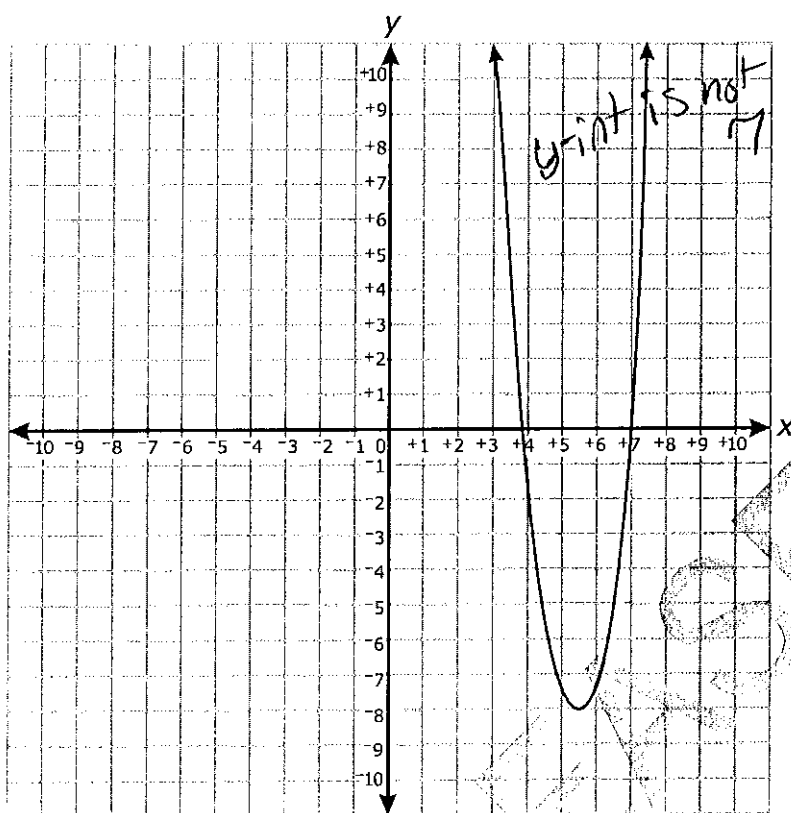
Answer choices B, C, and D are on the following pages.



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~~B~~



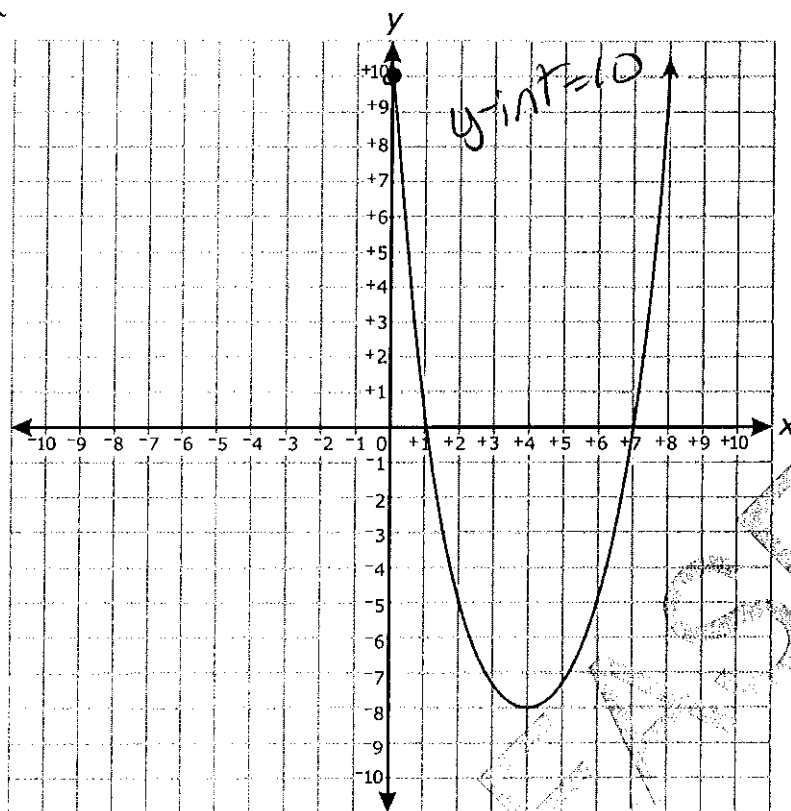
Answer choices C and D are on the following pages.



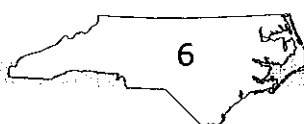
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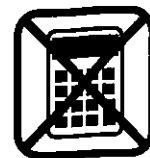


X

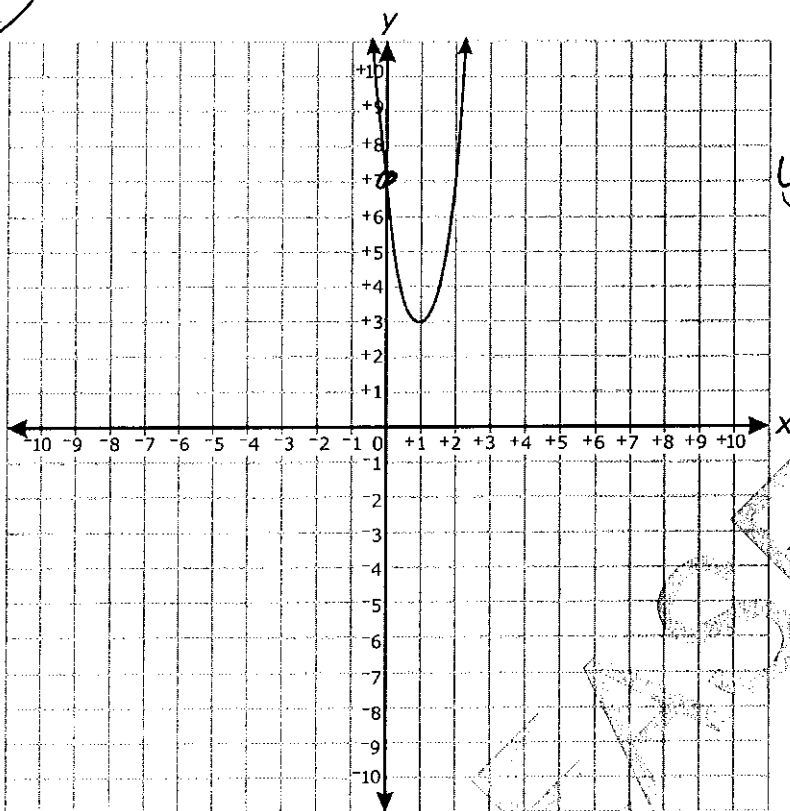


Answer choice D is on the following page.





D



$$y\text{-int} = 7$$

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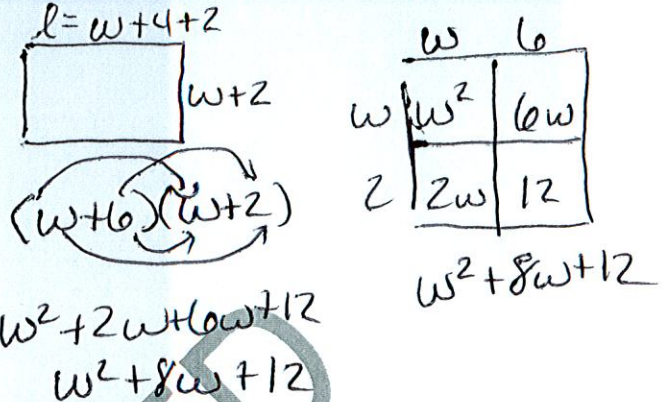






- 5 The floor of a rectangular cage has a length 4 feet greater than its width,  $w$ . James will increase both dimensions of the floor by 2 feet. Which equation represents the new area,  $N$ , of the floor of the cage?

- A  $N = w^2 + 4w$   
 B  $N = w^2 + 6w$   
 C  $N = w^2 + 6w + 8$   
 D  $N = w^2 + 8w + 12$



Questions 6 through 13 require you to write your answers in the boxes provided on your answer sheet. Write only one number or symbol in each box and fill in the circle in each column that matches what you have printed. Fill in only one circle in each column.

- 6 Two boys, Shawn and Curtis, went for a walk. Shawn began walking 20 seconds earlier than Curtis.

- Shawn walked at a speed of 5 feet per second.
- Curtis walked at a speed of 6 feet per second.

Time	S	C	Time
20	100	0	0
40	200	120	20
60	300	240	40
80	400	360	60
100	500	480	80
120	600	600	100

For how many seconds had Shawn been walking at the moment when the two boys had walked exactly the same distance?

~~100~~ Shawn will have been walking 120 sec.

- 7 The math club sells candy bars and drinks during football games. Let  $c$  = # of candy bars and  $d$  = # of drinks.
- 60 candy bars and 110 drinks will sell for \$265.
  - 120 candy bars and 90 drinks will sell for \$270.

How much does each candy bar sell for?

Candy bars sell for \$.75

(Note: Express the answer in dollars.cents.)

Handwritten equations for Question 7:

$$\begin{aligned} 2(60c + 110d) &= 265 \\ 120c + 90d &= 270 \\ \rightarrow 120c + 220d &= 530 \\ -130d &= -260 \\ -130 & \quad -130 \end{aligned}$$

Handwritten calculations for Question 7:

$$\begin{aligned} 60c + 110(2) &= 265 \\ 60c + 220 &= 265 \\ 60c &= 45 \\ c &= 45/60 = 3/4 = .75 \end{aligned}$$

Go to the next page.

$d = 2$   
 Substitute into 1st equation





- 8 What is the smallest of 3 consecutive positive integers if the product of the smaller two integers is 5 less than 5 times the largest integer?

$$\begin{aligned} 1^{\text{st}} &= x & x(x+1) &= 5(x+2) - 5 & x^2 - 4x &= 5 & x-5 &= 0 & x+1 &= 0 \\ 2^{\text{nd}} &= x+1 & x^2 + x &= 5x + 10 - 5 & x^2 - 4x - 5 &= 0 & x &= 5 & x &= -1 \\ 3^{\text{rd}} &= x+2 & x^2 + x &= 5x + 5 & (x-5)(x+1) &= 0 & \text{positive \#} & & & \end{aligned}$$

5

- 9 The function  $f(t) = -5t^2 + 20t + 60$  models the approximate height of an object  $t$  seconds after it is launched. How many seconds does it take the object to hit the ground?

$$\begin{aligned} -5t^2 + 20t + 60 &= 0 \\ -5(t^2 - 4t - 12) &= 0 \\ (t-6)(t+2) &= 0 & \text{time must be positive so} \\ t-6 &= 0 & t+2 &= 0 \\ \underline{t=6} & & t &= -2 & t &= 6 \text{ sec.} \end{aligned}$$

- 10 Two times Antonio's age plus three times Sarah's age equals 34. Sarah's age is also five times Antonio's age. How old is Sarah?

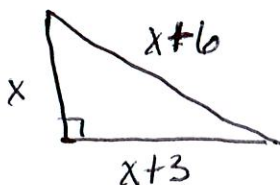
$$\begin{aligned} 2A + 3S &= 34 & 2A + 3(5A) &= 34 & S &= 5A \\ S &= 5A & 2A + 15A &= 34 & S &= 5(2) \\ & & 17A &= 34 & A &= 2 & S &= \underline{10} \end{aligned}$$

substitution

- 11 Suppose that the function  $f(x) = 2x + 12$  represents the cost to rent  $x$  movies a month from an internet movie club. Makayla now has \$10. How many more dollars does Makayla need to rent 7 movies next month?

$$\begin{aligned} \text{let } x &= 7 & \text{She has 10 so } 26 - 10 &= 16 \\ 2(7) + 12 &= 14 + 12 = 26 & \text{She needs } \underline{16} \end{aligned}$$

- 12 The larger leg of a right triangle is 3 cm longer than its smaller leg. The hypotenuse is 6 cm longer than the smaller leg. How many centimeters long is the smaller leg?



$$\begin{aligned} a^2 + b^2 &= c^2 \\ x^2 + (x+3)^2 &= (x+6)^2 \\ x^2 + x^2 + 6x + 9 &= x^2 + 12x + 36 \\ 2x^2 + 6x + 9 &= x^2 + 12x + 36 \\ -x^2 & & -x^2 \\ x^2 + 6x + 9 &= 12x + 36 \\ -12x & & -12x \\ -6x + 9 &= 27 \\ -6x &= 18 \\ x &= -3 \end{aligned}$$

$x^2 - 6x + 9 = 36$   
 $x^2 - 6x - 27 = 0$   
 $(x-9)(x+3) = 0$   
 $x-9 = 0$     $x+3 = 0$   
 $x = 9$     $x = -3$



13 Katie and Jennifer are playing a game.

- Katie and Jennifer each started with 100 points.
- At the end of each turn, Katie's points doubled.
- At the end of each turn, Jennifer's points increased by 200.

At the start of which turn will Katie first have more points than Jennifer?

4

This is the end of the calculator inactive released items.

RELEASED

Katie	Jennifer	
100	100	1
200	300	2
400	500	3
800	700	4





14 A school purchases boxes of candy bars.

- Each box contains 50 candy bars.
- Each box costs \$30.

How much does the school have to charge for each candy bar to make a profit of \$10 per box?

- A \$0.40  
B \$0.50  
C \$0.80  
D \$1.25

add 10 to initial cost per box

$$30 + 10 = 40$$

$$\frac{50x = 40}{50} \quad \frac{50}{50}$$

$$x = .8$$

15 Energy and mass are related by the formula  $E = mc^2$ .

- $m$  is the mass of the object.
- $c$  is the speed of light.

Which equation finds  $m$ , given  $E$  and  $c$ ?

- A  $m = E - c^2$   
B  $m = Ec^2$   
C  $m = \frac{c^2}{E}$   
D  $m = \frac{E}{c^2}$

$$\frac{E = mc^2}{c^2} \quad \frac{E}{c^2} = \frac{mc^2}{c^2}$$

$$m = \frac{E}{c^2}$$

isolate  $m$  by  
dividing by  $c^2$





- 16 Suppose that the equation  $V = 20.8x^2 - 458.3x + 3,500$  represents the value of a car from 1964 to 2002. What year did the car have the least value?

( $x = 0$  in 1964)

- A 1965  $x = 1$  ~~30625~~  
 B 1970  $x = 6$  1499  
 C 1975  $x = 11$  9755  
 D 1980  $x = 16$  1492

substitute in for  $x$  to find the values.

- 17 The table below shows the average weight of a type of plankton after several weeks.

Time (weeks)	Weight (ounces)
8	0.04
9	0.07
10	0.14
11	0.25
12	0.49

What is the average rate of change in weight of the plankton from week 8 to week 12?

- A 0.0265 ounce per week  
 B 0.0375 ounce per week  
 C 0.055 ounce per week  
 D 0.1125 ounce per week

$(8, 0.04)$   $(12, 0.49)$

Slope

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{0.49 - 0.04}{12 - 8} = \frac{0.45}{4} = 0.1125$$



- 18 Dennis compared the  $y$ -intercept of the graph of the function  $f(x) = 3x + 5$  to the  $y$ -intercept of the graph of the linear function that includes the points in the table below.

$(-7, 2)$   $(-1, 5)$   
 $\frac{5-2}{-1-7} = \frac{3}{-6} = -\frac{1}{2}$   
 $y - y_1 = m(x - x_1)$   
 $y - 2 = -\frac{1}{2}(x + 7)$   
 $y - 2 = -\frac{1}{2}x - \frac{7}{2}$   
 $y = -\frac{1}{2}x - \frac{7}{2} + 2$   
 $y = -\frac{1}{2}x - \frac{3}{2}$   
 $y\text{-int} = -1.5$

$x$	$g(x)$
-7	2
-5	3
-3	4
-1	5

$f(x) = 3x + 5$   $y\text{-int} = 5$

What is the difference when the  $y$ -intercept of  $f(x)$  is subtracted from the  $y$ -intercept of  $g(x)$ ?

- A -11.0  
 B -9.3  
 C 0.5  
 D 5.5

$5.5 - 5 = 0.5$

- 19 Cell phone Company Y charges a \$10 start-up fee plus \$0.10 per minute,  $x$ . Cell phone Company Z charges \$0.20 per minute,  $x$ , with no start-up fee. Which function represents the difference in cost between Company Y and Company Z?

- A  $f(x) = -0.10x - 10$   
 B  $f(x) = -0.10x + 10$   
 C  $f(x) = 10x - 0.10$   
 D  $f(x) = 10x + 0.10$

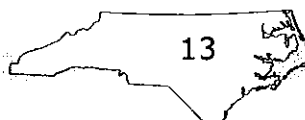
Comp Y

$y = 10 + 0.1x$

Comp. Z

$y = 0.2x$

$Y - Z = 10 + 0.1x - 0.2x = 10 - 0.1x$   
 or  
 $-0.10x + 10$







- 20 Monica did an experiment to compare two methods of warming an object. The results are shown in the table below.

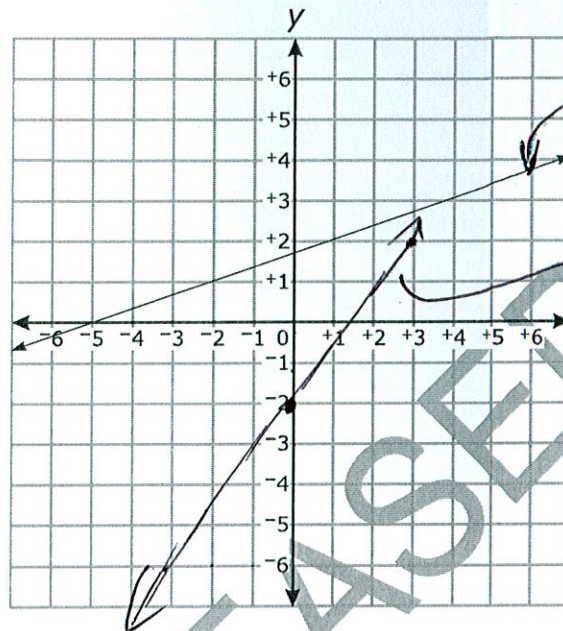
Time (Hours)	Method 1 Temperature (°F)	Method 2 Temperature (°F)
0	0	1.5
1	5	3
2	11	6
3	15	12
4	19	24
5	25	48

Which statement **best** describes her results?

- ☒ A The temperature using both methods changed at a constant rate.
- ☒ B The temperature using both methods changed exponentially.
- ☒ C The temperature using Method 2 changed at a constant rate.
- ☒ D The temperature using Method 2 changed exponentially.



- 21 Mario compared the slope of the function graphed below to the slope of the linear function that has an x-intercept of  $\frac{4}{3}$  and a y-intercept of  $-2$ .



What is the slope of the function with the smaller slope?

- A  $\frac{1}{5}$
- B  $\frac{1}{3}$
- C 3
- D 5

$$\frac{4}{3} > \frac{1}{3}$$

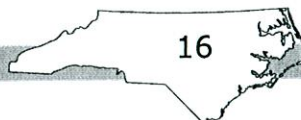


- 22 The boiling point of water,  $T$  (measured in degrees), at altitude  $a$  (measured in feet) is modeled by the function  $T(a) = -0.0018a + 212$ . In terms of altitude and temperature, which statement describes the meaning of the slope? *at 0 alt. BP = 212*
- ☒ A The boiling point increases by 18 degrees as the altitude increases by 1,000 feet. *at 1000 alt BP = 210.2*
- ☒ B The boiling point increases by 1.8 degrees as the altitude increases by 1,000 feet. *BP = 210.2*
- C The boiling point decreases by 18 degrees as the altitude increases by 1,000 feet.  *$\frac{212}{210.2} = 1.8$*
- ☒ D The boiling point decreases by 1.8 degrees as the altitude increases by 1,000 feet.

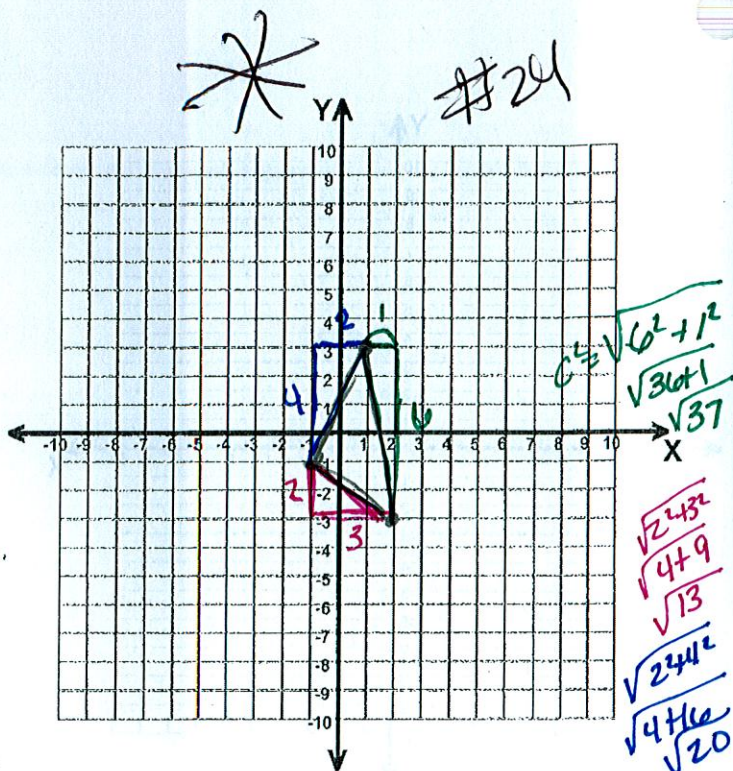
- 23 A line segment has endpoints  $J(2, 4)$  and  $L(6, 8)$ . The point  $K$  is the midpoint of  $\overline{JL}$ . What is an equation of a line perpendicular to  $\overline{JL}$  and passing through  $K$ ?
- Slope of  $\overline{JL} = \frac{8-4}{6-2} = \frac{4}{4} = 1$*   
*midpt of  $\overline{JL} = (\frac{2+6}{2}, \frac{4+8}{2}) = (4, 6)$*   
 *$\perp$  slope = -1*  
 *$y - y_1 = m(x - x_1)$*   
 *$y - 6 = -1(x - 4)$*   
 *$y - 6 = -x + 4$*   
 *$y = -x + 10$*
- ☒ A  $y = -x + 10$
- B  $y = -x - 10$
- C  $y = x + 2$
- D  $y = x - 2$

- 24 A triangle has vertices at  $(1, 3)$ ,  $(2, -3)$ , and  $(-1, -1)$ . What is the **approximate** perimeter of the triangle?

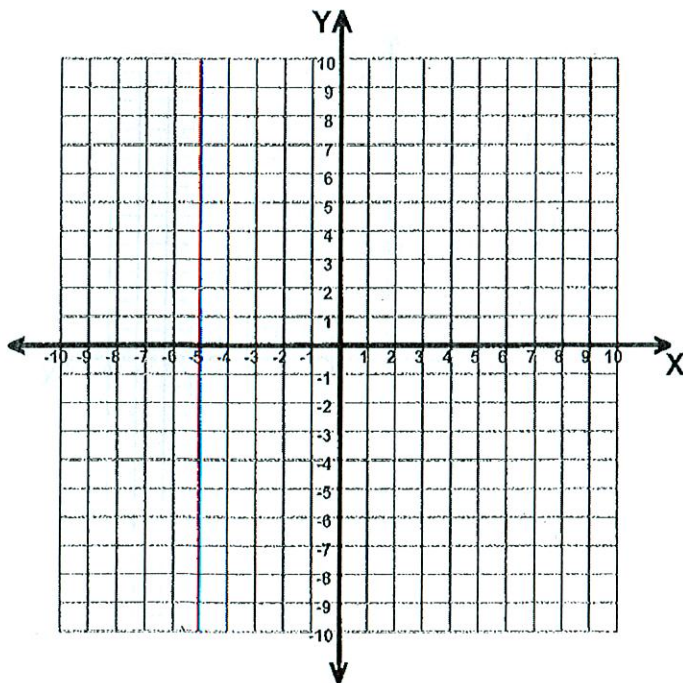
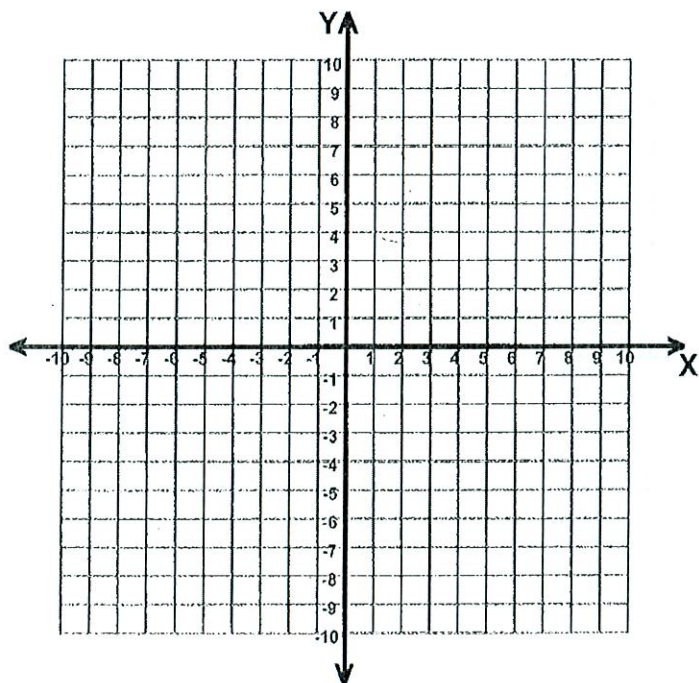
- A 10
- ☒ B 14
- C 15
- D 16







$$\sqrt{37} + \sqrt{13} + \sqrt{20} \approx 14$$







- 25 The table below shows the area of several states.

State	Area (thousands of square miles)
Connecticut	6
Georgia	59
Maryland	12
Massachusetts	11
New Hampshire	9
New York	54
North Carolina	54
Pennsylvania	46

without Del.  
mean 31.375  
range 53  
IQR 44  
with Del.  
mean 28.11  
range 57  
IQR 40.5

Delaware has an area of 2,000 square miles. Which is true if Delaware is included in the data set?

- A The mean increases. *decreased*  
B The range decreases. *increased*  
C The interquartile range decreases. *increased*  
D The standard deviation increases. *must be*

- 26 The table below shows the distance a car has traveled.

Minutes	25	50	75	100	125
Distance Traveled (in miles)	20	40	60	80	100

What is the meaning of the slope of the linear model for the data?

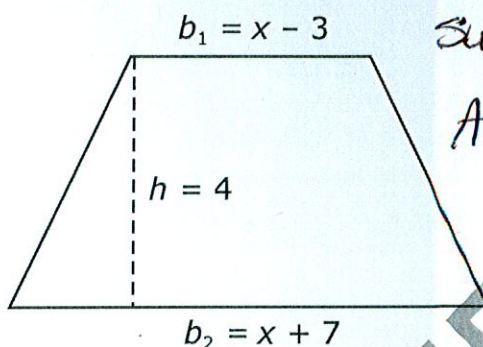
- A The car travels 5 miles every minute.  
B The car travels 4 miles every minute.  
C The car travels 4 miles every 5 minutes.  
D The car travels 5 miles every 4 minutes.

Slope =  $\frac{y_2 - y_1}{x_2 - x_1}$   
 $(x_1, y_1) = (25, 20)$   $(x_2, y_2) = (125, 100)$   
 $\frac{100 - 20}{125 - 25} = \frac{80}{100} = \frac{4 \text{ dist.}}{5 \text{ min.}}$





- 27 The area of a trapezoid is found using the formula  $A = \frac{1}{2}h(b_1 + b_2)$ , where  $A$  is the area,  $h$  is the height, and  $b_1$  and  $b_2$  are the lengths of the bases.



Substitute into the formula

$$A = \frac{1}{2}(4)(x-3+x+7)$$

$$= 2(2x+4)$$

$$= 4x+8$$

What is the area of the above trapezoid?

- A  $A = 4x + 2$
- ☒ B  $A = 4x + 8$
- C  $A = 2x^2 + 4x - 21$
- D  $A = 2x^2 + 8x - 42$

- 28 John mixed cashews and almonds.

- John bought 4 pounds of almonds for a total cost of \$22.
- The cost per pound for cashews is 60% more than the cost per pound for almonds.
- John bought enough cashews that, when he mixed them with the almonds, the mixture had a value of \$6.50 per pound.

$$\frac{22}{4} = 5.5/\text{lb}$$

$$6(5.5) + 5.5 = 8.8/\text{lb}$$

**Approximately** what percent of the mixture, by weight, was cashews?

- A 20%
- B 25%
- ☒ C 30%
- D 35%

Almonds	4 lb	5.5/lb
Cashews	x	8.8/lb
mix	x+4	6.5/lb

$$22 + 8.8x = 6.5(x+4)$$

$$22 + 8.8x = 6.5x + 26$$

$$-22 \quad -22$$

$$8.8x = 6.5x + 4$$

$$-6.5x \quad -6.5x$$

$$2.3x = 4$$

$$\frac{2.3x}{2.3} = \frac{4}{2.3}$$

$$1.7 + 4 = 5.7$$

$$\frac{1.7}{5.7} \approx 30\%$$

$$x \approx 1.7/\text{lb}$$





- 29 Lucy and Barbara began saving money the same week. The table below shows the models for the amount of money Lucy and Barbara had saved after  $x$  weeks.

Lucy's Savings	$f(x) = 10x + 5$
Barbara's Savings	$g(x) = 7.5x + 25$

when will these be equal to each other?

After how many weeks will Lucy and Barbara have the same amount of money saved?

- A 1.1 weeks  
B 1.7 weeks  
C 8 weeks  
D 12 weeks

$$\begin{aligned} 10x + 5 &= 7.5x + 25 \\ -5 &\quad -5 \\ \hline 10x &= 7.5x + 20 \\ -7.5x &\quad -7.5x \\ \hline 2.5x &= 20 \\ \frac{2.5x}{2.5} &= \frac{20}{2.5} \\ x &= 8 \end{aligned}$$

- 30 Collin noticed that various combinations of nickels and dimes could add up to \$0.65.

- Let  $x$  equal the number of nickels.
- Let  $y$  equal the number of dimes.

What is the domain where  $y$  is a function of  $x$  and the total value is \$0.65?

- A {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13}  
B {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13}  
C {0, 1, 3, 5, 7, 9, 11, 13}  
D {1, 3, 5, 7, 9, 11, 13}

$$n = .05 \quad d = .10$$

$$.05x + .10d = .65$$

Domain range plug and chug or

n	d
1	6
3	5
5	4
7	3
9	2
11	1
13	0



- 31 The table below shows the cost of a pizza based on the number of toppings.

Number of Toppings ( $n$ )	Cost ( $C$ )
1	\$12
2	\$13.50
3	\$15
4	\$16.50

$x_1, y_1$      $x_2, y_2$   
 $(1, 12)$      $(4, 16.5)$   
 $\frac{16.5 - 12}{4 - 1} = \frac{4.5}{3} = 1.5$

Which function represents the cost of a pizza with  $n$  toppings?

A  $C(n) = 12 + 1.5(n - 1)$  *3 substitute to see which works*

~~B~~  $C(n) = 1.5n + 12$  *= 16.5*

~~C~~  $C(n) = 12 + n$

~~D~~  $C(n) = 12n$

- 32 There were originally 4 trees in an orchard. Each year the owner planted the same number of trees. In the 29th year, there were 178 trees in the orchard. Which function,  $t(n)$ , can be used to determine the number of trees in the orchard in any year,  $n$ ?

A  $t(n) = \frac{178}{29}n + 4$

~~B~~  $t(n) = \frac{178}{29}n - 4$

C  $t(n) = 6n + 4$

~~D~~  $t(n) = 29n - 4$

original = 4.    year 0  
 29th year = 178    year 29  
 $(0, 4)$      $(29, 178)$   
 $\frac{178 - 4}{29 - 0} = \frac{174}{29} = 6$



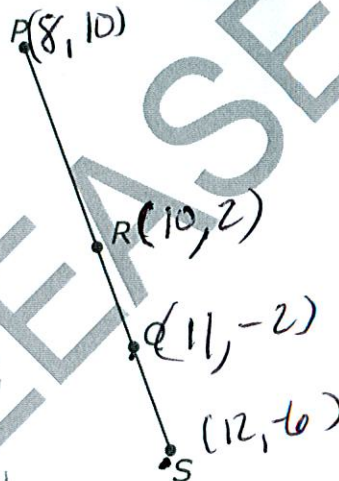


- 33 The vertices of quadrilateral  $EFGH$  are  $E(-7, 3)$ ,  $F(-4, 6)$ ,  $G(5, -3)$ , and  $H(2, -6)$ . What kind of quadrilateral is  $EFGH$ ?

A trapezoid  
 B square  
 C rectangle that is not a square  
 D rhombus that is not a square

Graph paper  
 on next page

- 34  $R$  is the midpoint of segment  $PS$ .  $Q$  is the midpoint of segment  $RS$ .



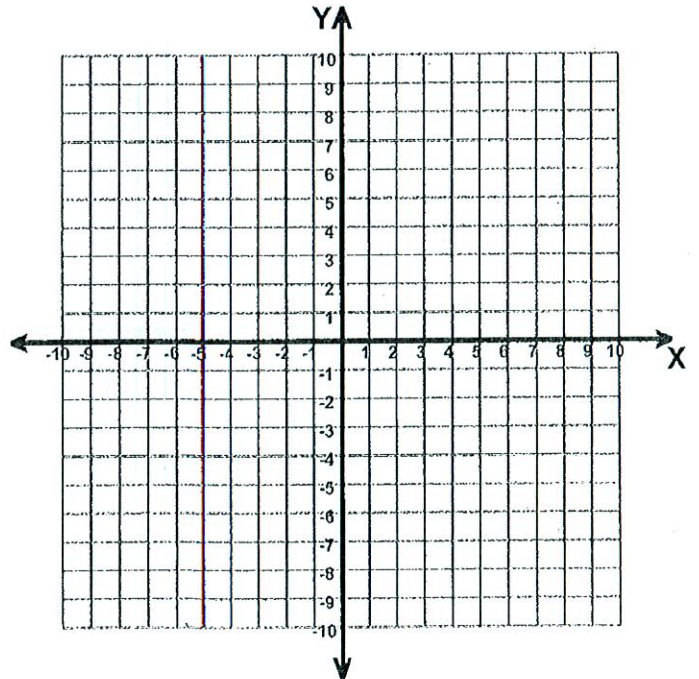
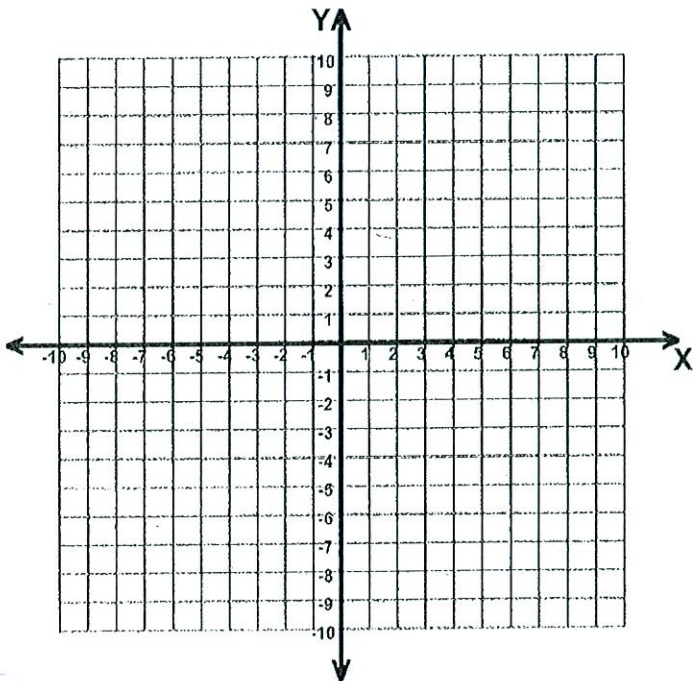
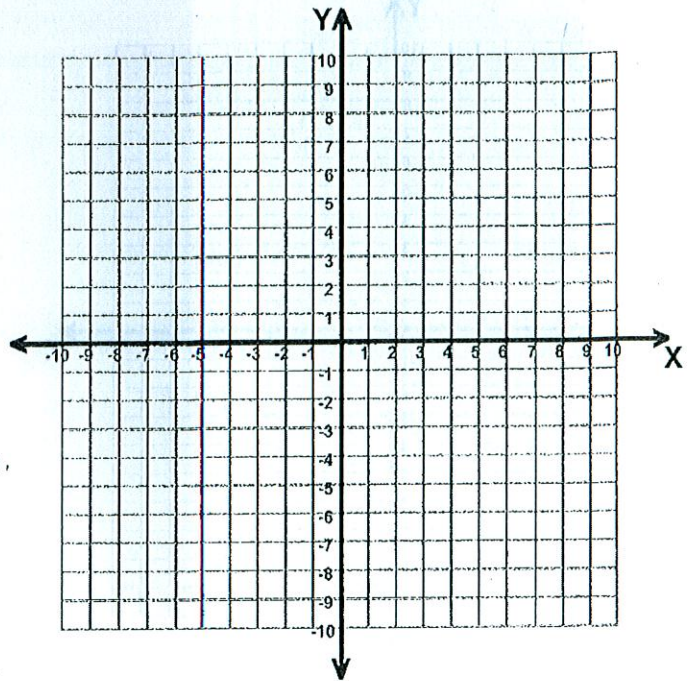
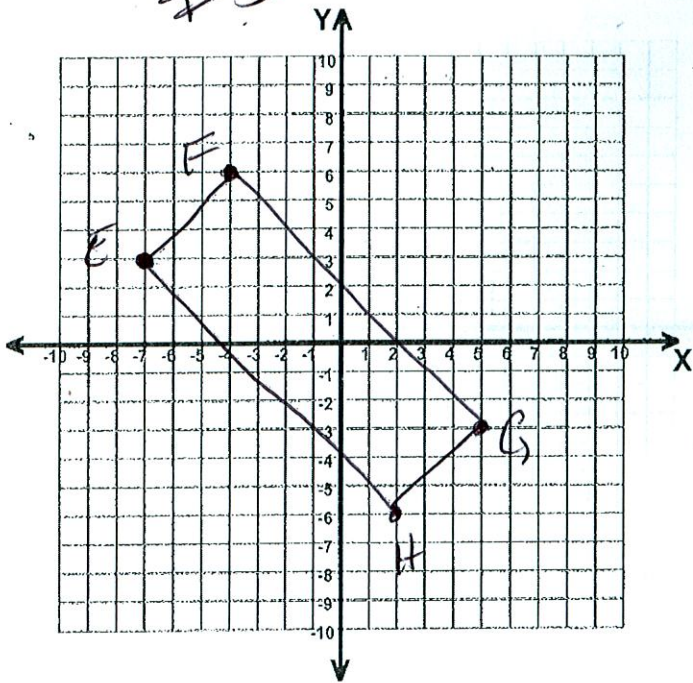
$$\left( \frac{8+12}{2}, \frac{10+(-6)}{2} \right) = \left( \frac{20}{2}, \frac{4}{2} \right) = (10, 2)$$

$$\left( \frac{12+10}{2}, \frac{-6+2}{2} \right) = \left( \frac{22}{2}, \frac{-4}{2} \right) = (11, -2)$$

$P$  is located at  $(8, 10)$ , and  $S$  is located at  $(12, -6)$ . What are the coordinates of  $Q$ ?

A  $(4, 2)$   
 B  $(2, -8)$   
 C  $(11, -2)$   
 D  $(10, 2)$

#33







- 35 The sequence below shows the total number of days Francisco had used his gym membership at the end of weeks 1, 2, 3, and 4.

4, 9, 14, 19, ...

Assuming the pattern continued, which function could be used to find the total number of days Francisco had used his gym membership at the end of week  $n$ ?

~~A~~  $f(n) = n^3 + 5 = 8$

~~$5n + 4 = 2$~~

plug & chug.

☒ B  $f(n) = 5n^{(3)} - 1 = 14$

~~C~~  $f(n) = 5n^{(3)} + 4 = 19$

~~D~~  $f(n) = n^2 = 9$

- 36 The number of points scored by a basketball player in the first eight games of a season are shown below.

15, 35, 18, 30, 25, 21, 32, 16

What would happen to the data distribution if she scored 24, 22, 27, and 28 points in her next four games?

- A The data distribution would become less peaked and more widely spread.  
B The data distribution would become less peaked and less widely spread.  
☒ C The data distribution would become more peaked and less widely spread.  
D The data distribution would become more peaked and more widely spread.

without additional scores

mean ~~20~~ 24

med ~~20~~ 23

~~mode~~

range 20

$Q_1$  17

$Q_3$  31

IQR 14

compare IQR  
14 > 9.5

with additional scores

mean 24.4

med. 24.5

~~mode~~

range 20

$Q_1$  19.5

$Q_3$  29

IQR 9.5



37 The table below shows the shoe size and age of 7 boys.

Name	Shoe Size (x)	Age (y)
Tyrone	6	9 ✓
Marcel	6	11 X
Patrick	7	15 ✓
Bobby	8	11 ✓
Dylan	9	15 X
Mike	10	16 X
Jonathan	12	17 X

$$\frac{3}{7} \approx 43\%$$

**Approximately** what percent of the boys' ages is more than 1 year different from the age predicted by the line of best fit for the data?

- A 14%
- B 29%
- ☒ C 43%
- D 57%

$$y = ax + b$$

$$a = 1.126$$

$$b = 4.097$$

$$y = 1.126x + 4.097$$

line of best fit

STAT → EDIT

L1 L2  
X1 Y5

STAT → CALC

#4 LinReg.

$$x = 6$$

$$y = 1.126(6) + 4.097 = 10.853$$

$$x = 7$$

$$y = 1.126(7) + 4.097 = 11.979$$

$$x = 8$$

$$y = 1.126(8) + 4.097 = 13.105$$

$$x = 9$$

$$y = 1.126(9) + 4.097 = 14.231$$

$$x = 10$$

$$y = 1.126(10) + 4.097 = 15.357$$

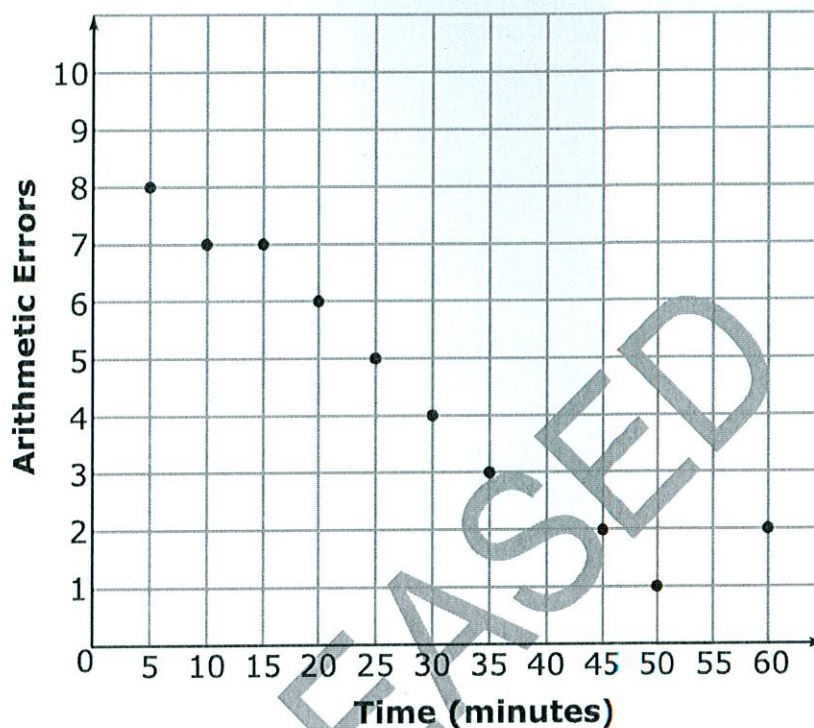
$$x = 12$$

$$y = 1.126(12) + 4.097 = 17.609$$





- 38 The scatterplot below shows the number of arithmetic errors 10 students made on a quiz and the amount of time the students took to complete the quiz.



As the amount of time spent on the quiz increases the # of errors decreases.  
Neg Correlation.

Which describes the relationship between the number of arithmetic errors the students made and the amount of time the students took to complete the quiz?

- A There is a strong positive relationship between the variables.
- ☒ B There is a strong negative relationship between the variables.
- C There is a weak positive relationship between the variables.
- D There is a weak negative relationship between the variables.

This is the end of the NC Math 1 released items.

