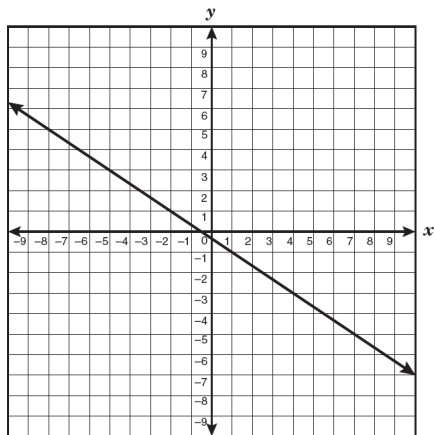What is the apparent slope of the line graphed below?

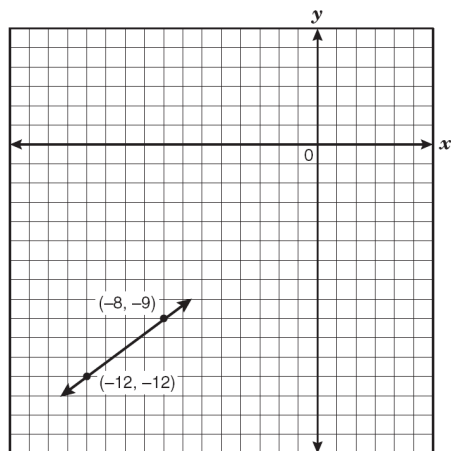A $-\dfrac{3}{2}$

B $\dfrac{2}{3}$

C $\dfrac{3}{2}$

D $-\dfrac{2}{3}$

If y varies directly with x and y is 14 when x is 6, which of the following represents this situation?

F $y = 20x$

G $y = \dfrac{7}{3}x$

H $y = 8x$

J $y = \dfrac{3}{7}x$

What are the coordinates of the x-intercept of the function graphed below?

F (4, 0)

G (−3, 0)

H (0, 4)

J (0, −3)

The graph below shows the number of pies and the number of cakes that the students in the art club need to sell at the school bake sale in order to raise $150. Which of the following represents the maximum number of cakes the art club could sell to raise exactly $150?

F 40

G 25

H 50

J 30
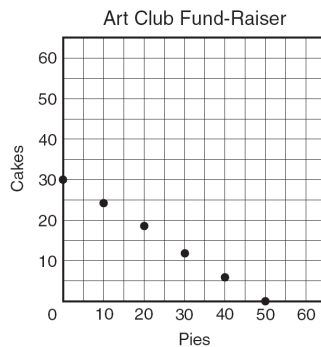
If the slope of the equation $y = -\dfrac{3}{5}x + 4$ is changed to $\dfrac{3}{5}$ and the y-intercept is changed to (0, −4), which statement best describes this situation?
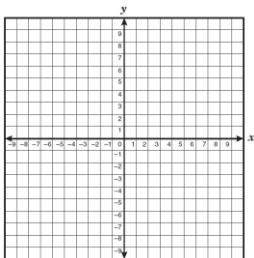
A The new line is perpendicular to the original line.

B The new line is parallel to the original line.

C The new line and the original line have the same y-intercept.

D The new line and the original line have the same x-intercept.

Which graph best represents the line that has a slope of $-\dfrac{5}{6}$ and contains the point (4, −3)?
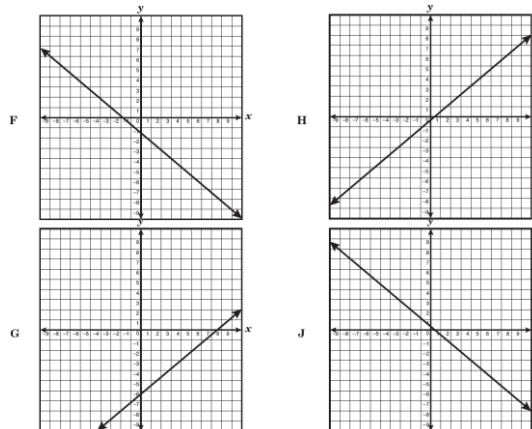
The graph of a linear function is shown below. If the line is translated 2 units down, which equation will best describe the new line?
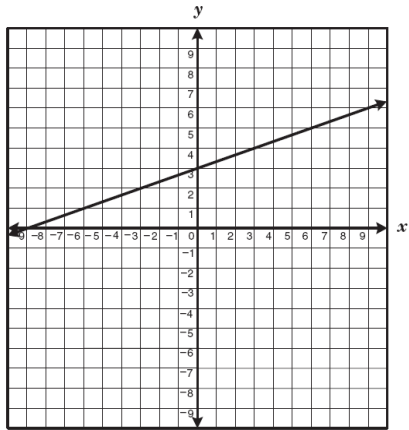

F $y = 3x + 1$

G $y = \dfrac{1}{3}x + 1$

H $y = 3x + 5$

J $y = \dfrac{1}{3}x + 5$

April '06 Obj 3 - # 26

What is the rate of change of the function $y = -7$?

F   7

G   −7

H   0

J   Undefined

April '06 Obj 3 - # 52

If y is directly proportional to x and $y = 12$ when $x = 16$, what is the value of x when $y = 5$?

F $1\dfrac{1}{3}$

G $3\dfrac{3}{4}$

H $6\dfrac{2}{3}$

J $\dfrac{3}{4}$

April '06 Obj 3 - # 28

Which table identifies points on the line defined by the equation $y - 5x = -9$?

A

x	y
−5	−34
−2	−19
1	−9
2	11
7	26

B

x	y
−6	−39
−5	−34
1	−14
4	10
7	24

C

x	y
−4	−29
−1	−14
1	−4
3	6
6	21

D

x	y
−7	−44
−3	−23
0	9
4	13
6	21

Feb '06 Obj 3 - # 3

Find the x- and y-intercepts of $-4x + 7y = -28$.

A x-intercept: (−4, 0)
     y-intercept: (0, 7)

B x-intercept: (7, 0)
     y-intercept: (0, −4)

C x-intercept: (0, 7)
     y-intercept: (−4, 0)

D x-intercept: (0, −4)
     y-intercept: (7, 0)

April '06 Obj 3 - # 49

If y varies directly with x and y is 42 when x is 4, what is the constant of variation expressed in decimal form?

Record your answer and fill in the bubbles on your answer document.

Be sure to use the correct place value.

Feb '06 Obj 3 - # 21

Which equation describes the line passing through the points (3, 0) and (0, 4)?

F $y = 3x + 4$

G $x = 4y + 3$

H $3x + 4y = 12$

J $4x + 3y = 12$

<div align="right">Feb '06 Obj 3 - # 26</div>

Identify the situation that best represents the amount $f(n)$ in the function $f(n) = 75 + 80n$.

F Alton paid $75 each for n gifts and spent $80 on himself.

G Bonita spent $75 on registration fees and $80 each for n credit hours last semester.

H Carlton deposited $75 per month for n months and an extra $80 in the summer.

**J** Dylan worked for 75 hours at n dollars per hour and earned $80 in tips.

<div align="right">Dec '06 Obj 3 - # 2</div>

Chanté bought a package of 36 tickets for carnival rides. Each ride requires 4 tickets per person. Which linear function, if any, represents the relationship between x, the number of carnival rides Chanté went on, and y, the number of tickets remaining?

F $y = 4x - 36$

G $y = 4(x - 36)$

H $y = 36 - 4x$

J No linear function exists.

<div align="right">Feb '06 Obj 3 - # 46</div>

Which graph best represents the line that has intercepts at (5, 0) and (0, −4)?
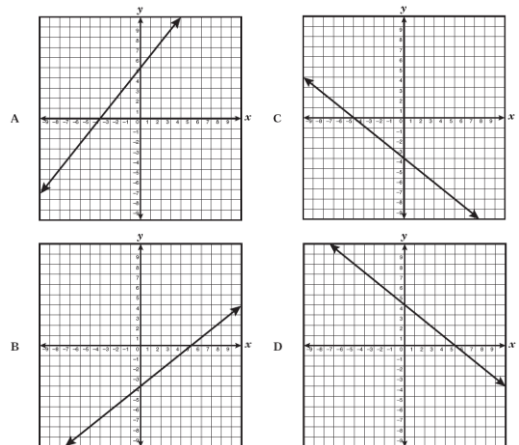
<div align="right">Dec '06 Obj 3 - # 5</div>

What is the slope of the function $-6x - 2y = 8$?

F $\dfrac{1}{3}$

G -3

H -4

J 3

<div align="right">Feb '06 Obj 3 - # 52</div>

How does the graph of $y = 3x + 2$ compare to the graph of $y = 4x + 2$?

F The slope of $y = 3x + 2$ is less steep.

G The slope of $y = 3x + 2$ is steeper.

H The graph of $y = 3x + 2$ has a greater y-intercept.

J The graph of $y = 3x + 2$ has a smaller y-intercept.

<div align="right">Dec '06 Obj 3 - # 18</div>

Agriesti - Objective3.docx - 4/12/2012 8:42:21 PM

What is the *y*-intercept of the linear function described by the data below?

x	y
−6	5.8
−3	3.4
2	−0.6
4	−2.2
7	−4.6

F (0, 1)

G (1.25, 0)

H (0, −1)

J (0, −1.25)

Dec '06 Obj 3 - # 20

If the slope of the function $y = -3.5x + 12.8$ is changed to 1.5, which of the following best describes the graph of the new function?

A The graph of the new function intercepts the *y*-axis at the same point as the original function.

B The graph of the new function intercepts the *x*-axis at the same point as the original function.

C The graph of the new function has a negative slope.

D The graph of the new function has a positive *x*-intercept.

Oct '06 Obj 3 - # 31

Kirk repairs computers. He charges an hourly rate plus a base fee for his services. The table below shows the relationship between *h*, the number of hours of labor, and *c*, the total cost for Kirk's services. If Kirk decides to keep his base fee the same but increase his hourly rate by $2, what will be the total cost for 8 hours of work?

Hours, h	Total Cost, c
1	$57
2	$69
4	$93
6	$117

A $112

B $141

C $143

D $157

Dec '06 Obj 3 - # 27

Kirk repairs computers. He charges an hourly rate plus a base fee for his services. The table below shows the relationship between *h*, the number of hours of labor, and *c*, the total cost for Kirk's services. If Kirk decides to keep his base fee the same but increase his hourly rate by $2, what will be the total cost for 8 hours of work?

Hours, h	Total Cost, c
1	$57
2	$69
4	$93
6	$117

A $112

B $141

C $143

D $157

Oct '06 Obj 3 - # 37

What is the equation of the line that passes through the points (−4, 1) and (4, −6)?

F $y = -\dfrac{7}{8}x - \dfrac{5}{2}$

G $y = -\dfrac{7}{8}x + \dfrac{9}{2}$

H $y = -\dfrac{8}{7}x + \dfrac{25}{7}$

J $y = -\dfrac{8}{7}x - \dfrac{20}{7}$

Oct '06 Obj 3 - # 24

The graph below shows the number of caramel apples and the number of popcorn balls that the students in the math club need to sell at their bake sale to raise $200. Which of the following numbers represents the maximum number of caramel-apple sales needed to raise exactly $200?

Items Needed to Raise $200
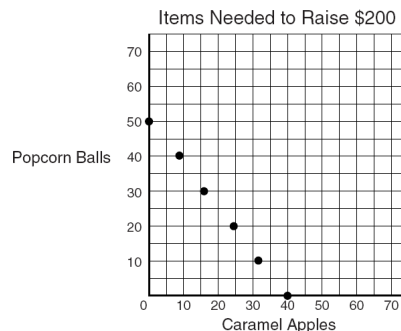
A 50

B 40

C 25

D 20

Oct '06 Obj 3 - # 53

At Vicky's Grocery Store the cost of a bag of ice varies directly with the weight of the ice. If a 7-pound bag of ice costs $0.86, which of the following best represents the cost of a 20-pound bag of ice?

F $1.63

G $2.86

H $3.01

J $2.46

Oct '06 Obj 3 - # 60