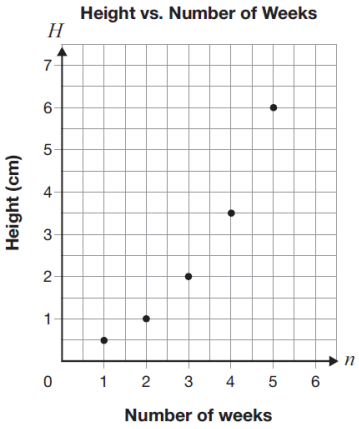
Review and EQAO Practice for Chapter 5 Part 1

2016

5 Information about the relationship between the height of a plant and time is shown on the grid below.



Which table of values shows only information about this relationship?

a

Number of weeks	Height (cm)
1	2
2	3
6	5

(b)

Number of weeks	Height (cm)
2	1
3	2
5	6

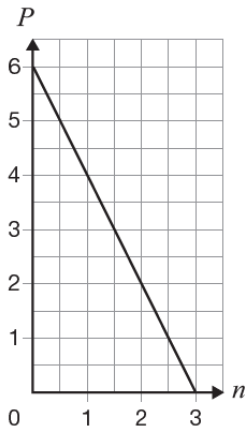
c

Number of weeks	Height (cm)
1	1
2	2
4	7

d

Number of weeks	Height (cm)
2	1
3	2
4	4

8 Consider the graph below.



Which of the following is an equation representing this graph?

a $P = 2n + 6$

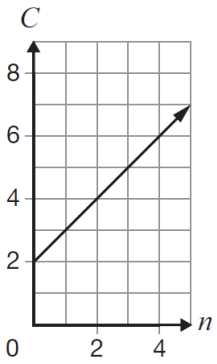
b $P = \frac{1}{2}n + 6$

(c) $P = -2n + 6$

d $P = -\frac{1}{2}n + 6$

2015

10 A relationship is represented by the following graph.



Which equation represents this relationship?

(a) $C = n + 2$

b $C = n + 1$

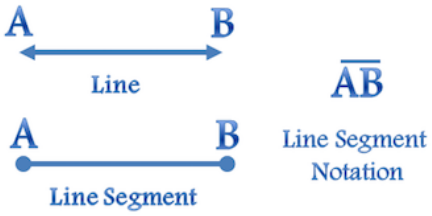
c $C = 2n + 2$

d $C = 2n + 1$

2015

21 The end points of line segment AB are A(3, −12) and B(6, k).

What is the value of k if the slope of line segment AB is −2?



(a) −18

b −6

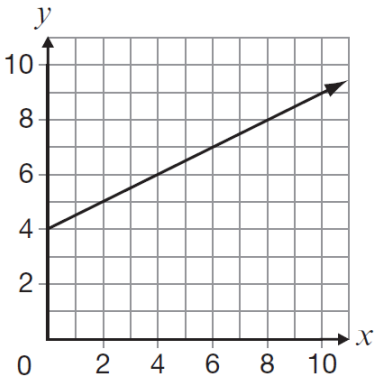
c 6

d 18

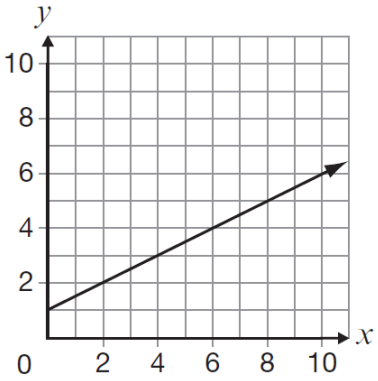
23 A line passes through the point (6, 4) and has a slope of $-\frac{1}{2}$.

Which of the following graphs represents this line?

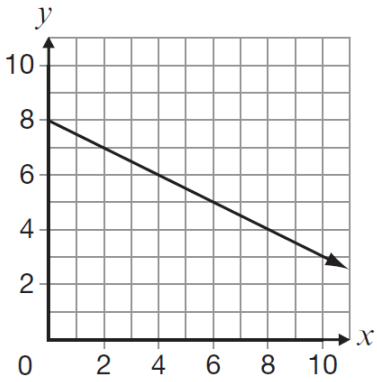
a



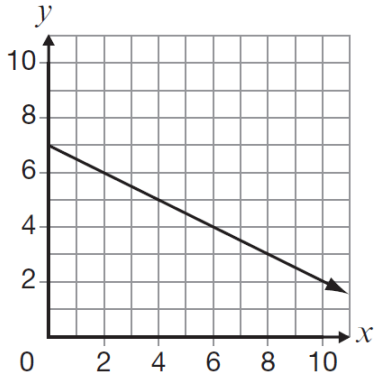
b



c



(d)



2014

16 A formula for determining the slope of a line is given below.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

What is the slope of the line that passes through the points (2, 3) and (5, −6)?

a -11

b -3

c $-\frac{1}{3}$

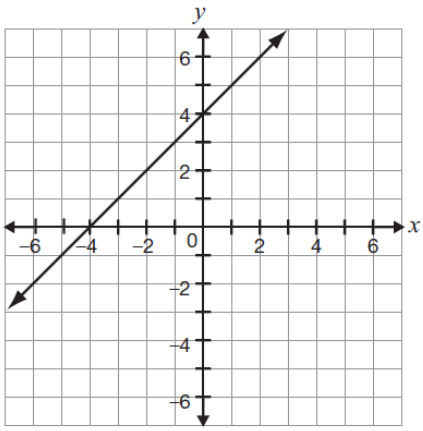
d $-\frac{1}{11}$

17 Consider the line represented by the equation $y = 3x + 2$.

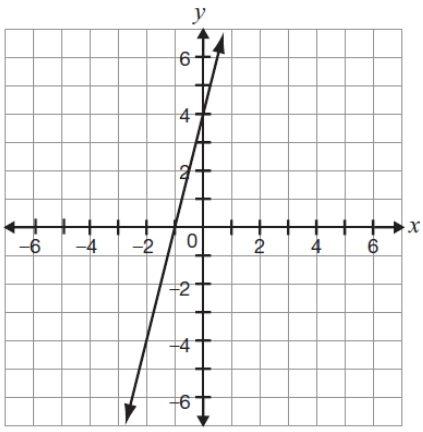
A new line is formed by decreasing the slope and increasing the y-intercept.

Which of the following could be the graph of the new line?

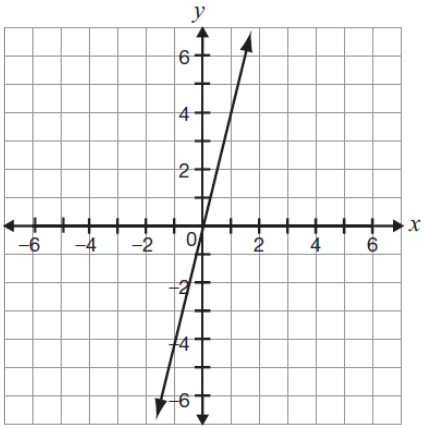
a



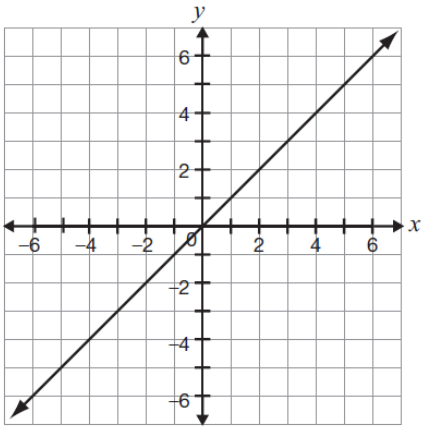
b



c



d



2014

19 A line has a y-intercept of 4 and a slope of -3.

Which equation represents this line?

a $y = 4x + 3$

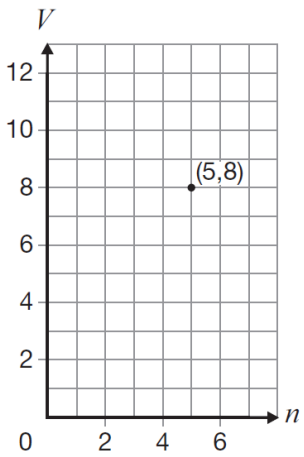
b $y = 4x - 3$

c $y = 4 + 3x$

(d) $y = 4 - 3x$

2013

16 The point on the grid below belongs to a linear relation that has $-\frac{3}{2}$ as its rate of change.



Which of the following points also belongs to this relation?

a (2,6)

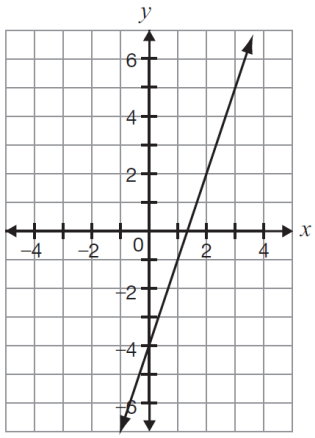
b (2,10)

(c) (3,11)

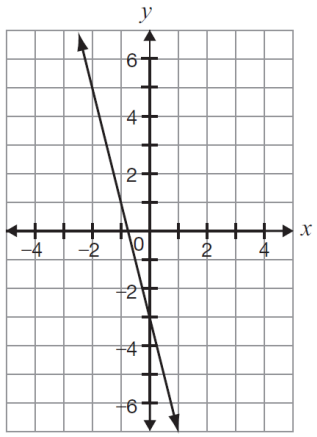
d (7,11)

17 Which of the following lines has the same slope as the line represented by $y = -3x + 4$?

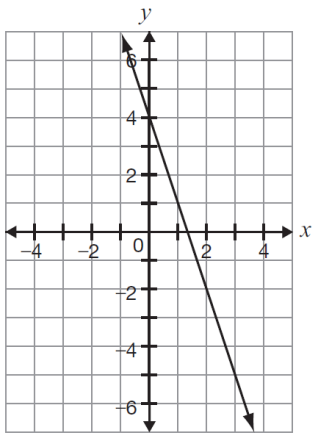
a



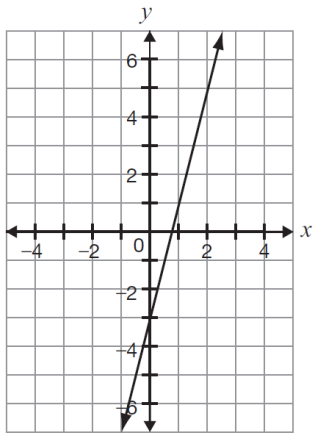
c



(b)



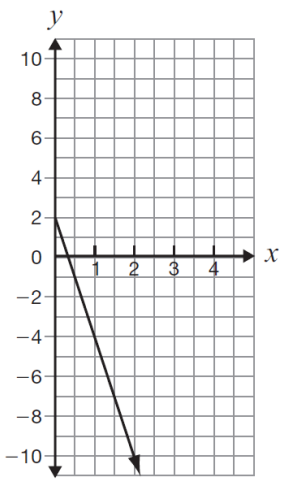
d



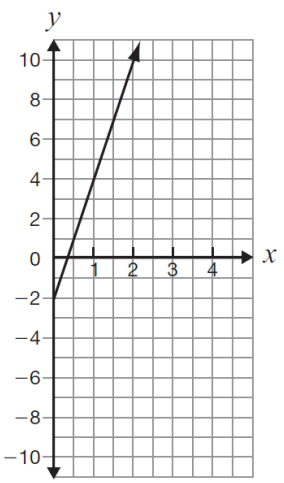
2013

19 Which of the following is the graph of the equation $y = -2x + 6$?

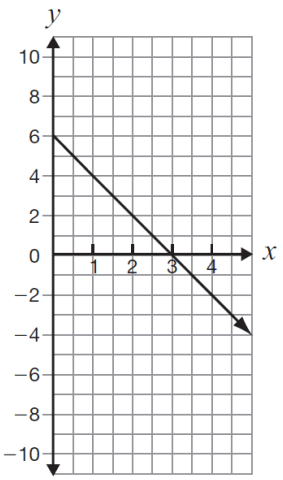
a



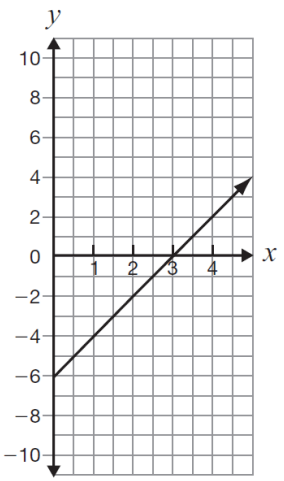
c



b



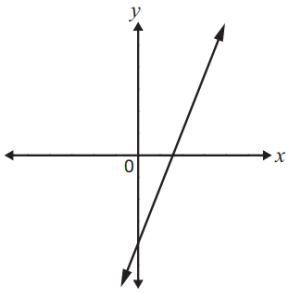
d



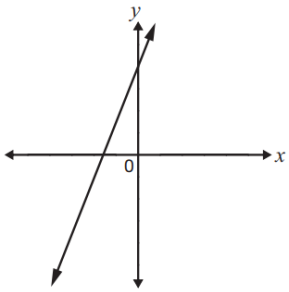
2018

15 Which of these graphs could represent $y = 5 - 2x$?

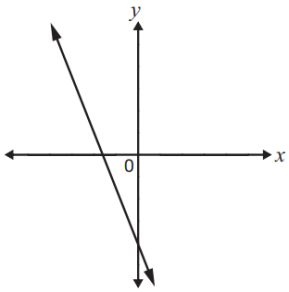
a



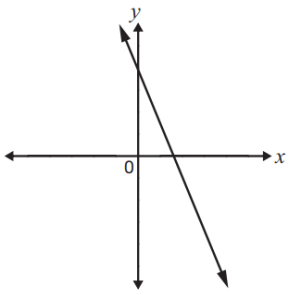
b



c



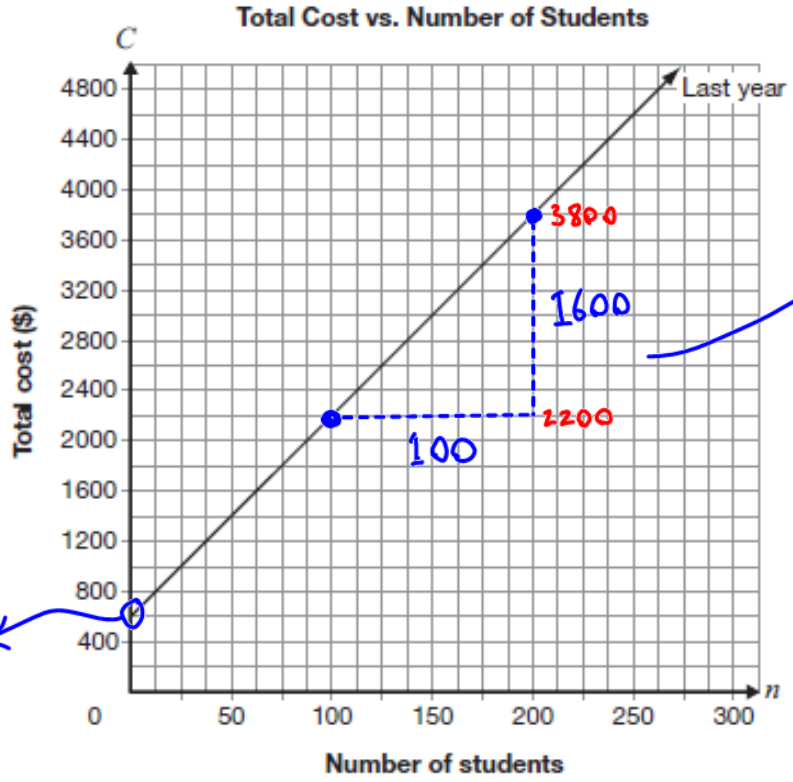
d



2017

11 What's the New Price?

This graph shows information about last year's total cost for a banquet for n students.



slope = rise / run
= 1600 / 100
= 16

b = initial cost
= 600

This year the cost per person has decreased by $5, but the initial fee has doubled.

Determine an equation to represent total cost, C, for this year.

$C =$ _____

Show your work.

Describe two ways the graph for total cost for this year will be different from the graph for total cost for last year.

Justify your answer.

last year → $y = mx + b$
$y = 16x + 600$
→ $-5x$ (600×2)

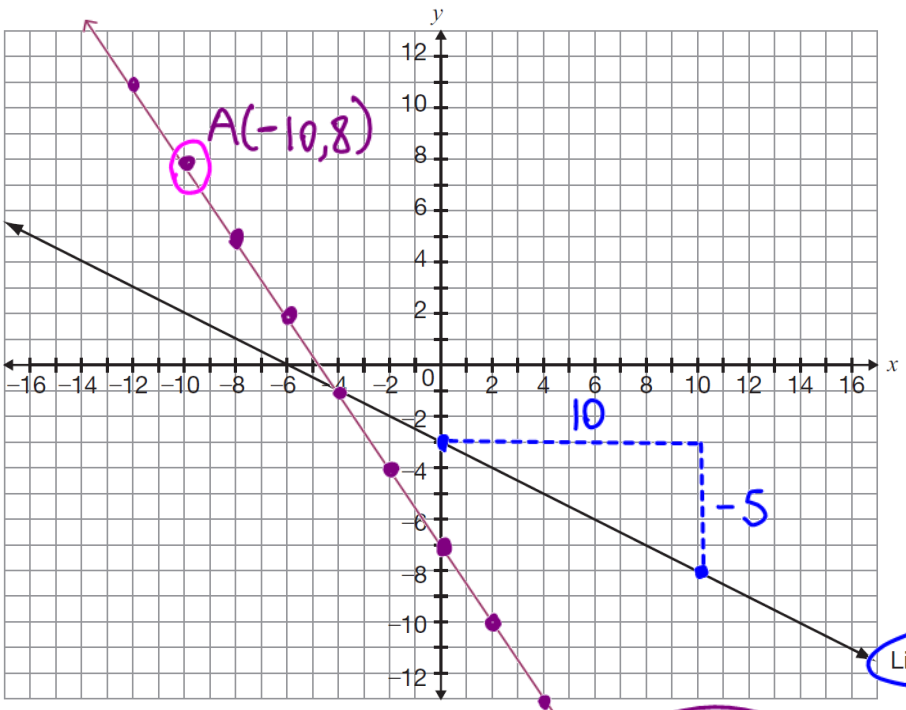
this year → $y = 11x + 1200$

1. the initial value will be higher so the graph will start higher on the vertical line
2. the line will be less steep

2013

23 Lovely Lines

Line 1 is shown on the grid below.



Graph Line 2 on the same grid so that it passes through A(−10, 8) and has a slope that is three times the slope of Line 1.

Justify your answer.

Step ①

- find slope of Line 1
- slope triangle → $m = \frac{\text{rise}}{\text{run}} = \frac{-5}{10} = -\frac{1}{2}$

Step ②

- the slope is three times line 1, so multiply it by 3

$= -\frac{1}{2} \times \frac{3}{1} = -\frac{3}{2}$

Step ③

- line 2 must pass through the point A(-10, 8), so that is your starting point, then use the slope $\frac{-3}{2}$ ← rise / ← run to find new points to create your line