

Daily Math

Week 14 (2013-2014)

Mon. November 18, 2013

Tues. November 19, 2013

Wed. November 20, 2013

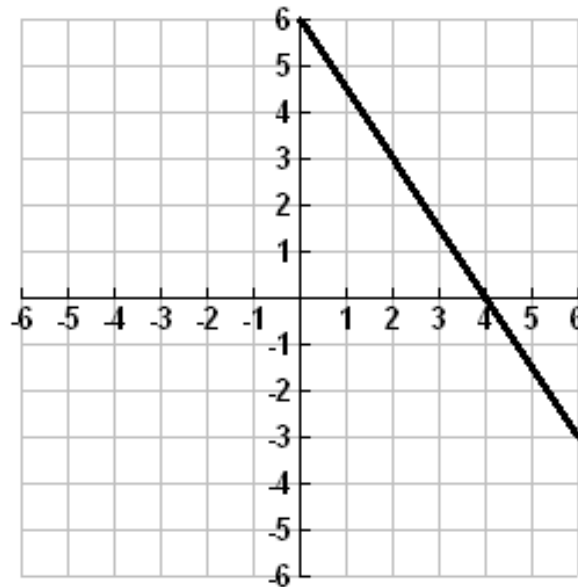
Thurs. November 21, 2013

Fri. November 22, 2013

Monday, November 18, 2013

1st

What is the y -intercept of the graph shown?



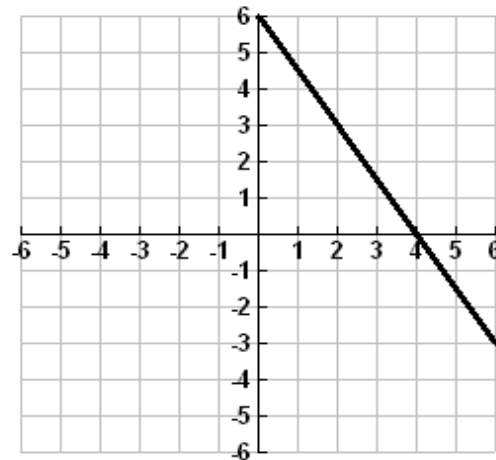
Monday, November 18, 2013

1st

What is the y -intercept of the graph shown?

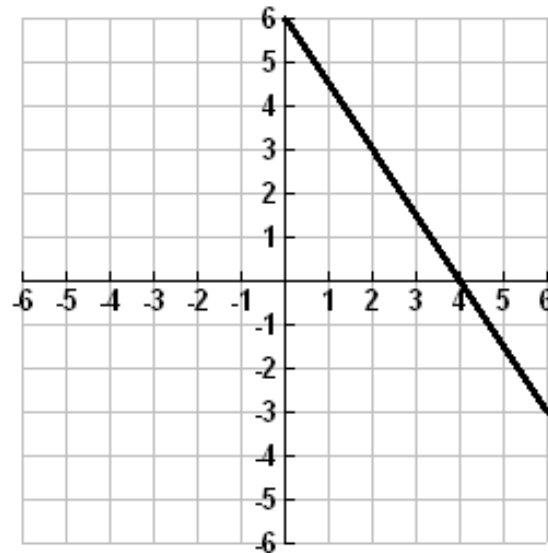
Answer: The y -intercept is the point where the graph crosses the y -axis.

y -intercept is $(0, 6)$



Monday, November 18, 2013 2nd

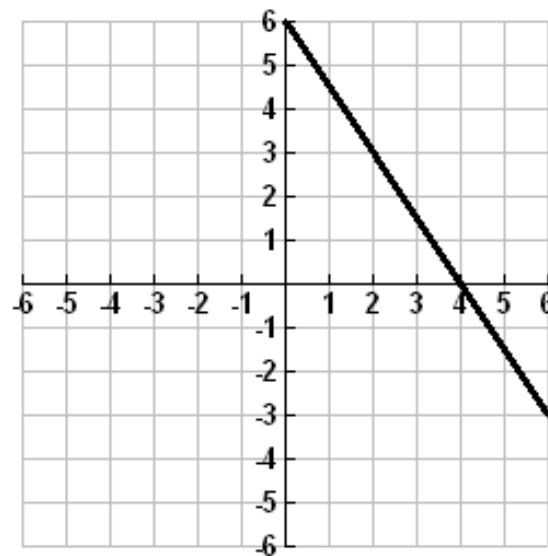
What is the x -intercept of the graph shown?



Monday, November 18, 2013

2nd

What is the x -intercept of the graph shown?



Answer: The x -intercept is the point at which the graph crosses the x -axis.

x -intercept is $(4, 0)$

Monday, November 18, 2013 3rd

Find the slope of the line that passes through the points (3,5) and (2,1).

Monday, November 18, 2013

3rd

Find the slope of the line that passes through the points (3,5) and (2,1).

Answer: slope = $\frac{y_2 - y_1}{x_2 - x_1}$

$$\frac{1-5}{2-3} = \frac{-4}{-1} = 4$$

Monday, November 18, 2013 4th

Find the slope of the line that passes through the points shown in the table:

x	2	4	6
y	6	12	18

Monday, November 18, 2013 4th

Find the slope of the line that passes through the points shown in the table:

x	2	4	6
y	6	12	18

$$\begin{aligned}\text{Answer: Slope} &= \frac{\text{change in } y}{\text{change in } x} \\ &= \frac{12-6}{4-2} = \frac{6}{2} = \mathbf{3}\end{aligned}$$

Monday, November 18, 2013

5th

Solve $3x - 2 = 4$.

Monday, November 18, 2013

5th

$$\text{Solve } 3x - 2 = 4$$

$$\text{Answer: } 3x - 2 = 4$$

$$3x - 2 + 2 = 4 + 2$$

$$3x = 6$$

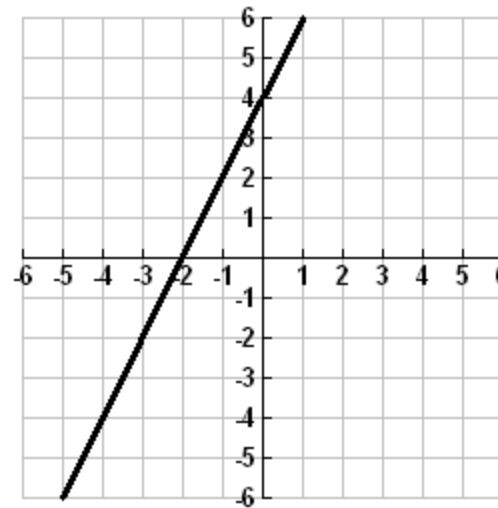
$$3x \div 3 = 6 \div 3$$

$$x = 2$$

Monday, November 18, 2013

6th

What is the y -intercept of the graph shown?



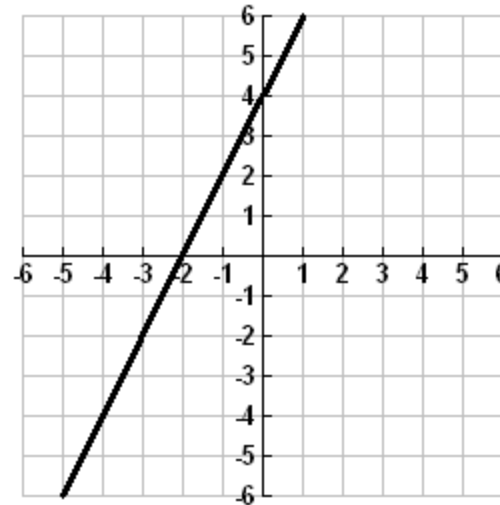
Monday, November 18, 2013

6th

What is the y -intercept of the graph shown?

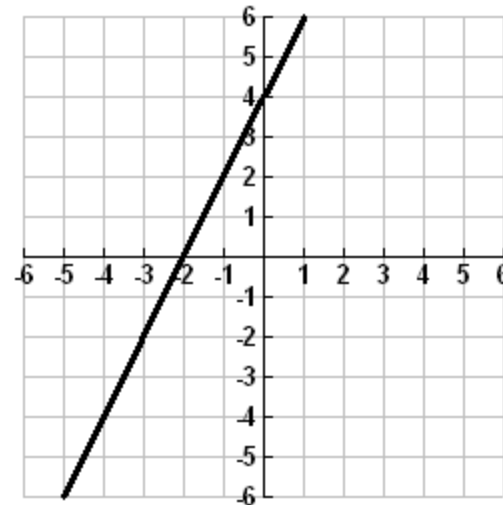
Answer:

y -intercept is $(0, 4)$



Monday, November 18, 2013 7th

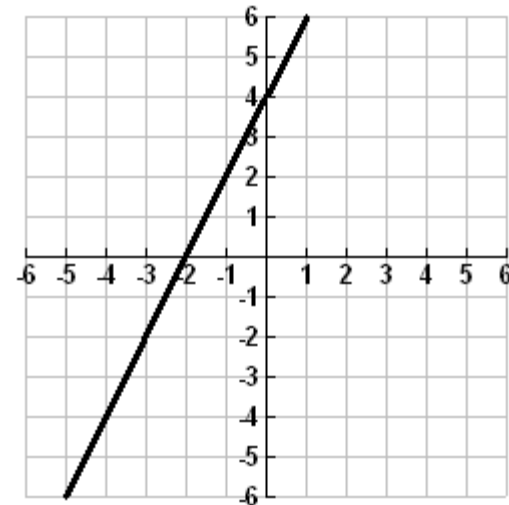
What is the x -intercept of the graph shown?



Monday, November 18, 2013

7th

What is the x -intercept of the graph shown?



Answer:

x -intercept is $(-2, 0)$

Tuesday, November 19, 2013 1st

Find the slope of the line that passes through the points: (1, 5) and (2, 8).

Tuesday, November 19, 2013 1st

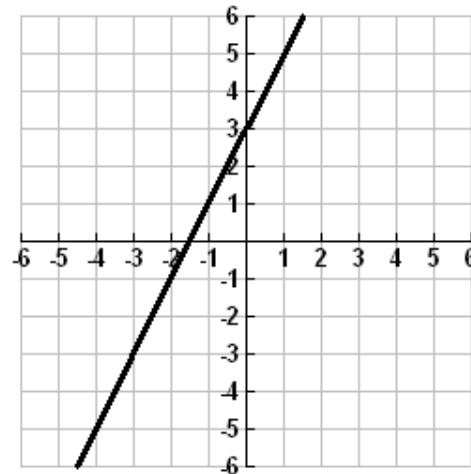
Find the slope of the line that passes through the points: (1, 5) and (2, 8).

Answer: slope = $\frac{y_2 - y_1}{x_2 - x_1}$

$$\frac{8-5}{2-1} = \frac{3}{1} = \mathbf{3}$$

Tuesday, November 19, 2013 2nd

What is the slope of the line shown in the graph?



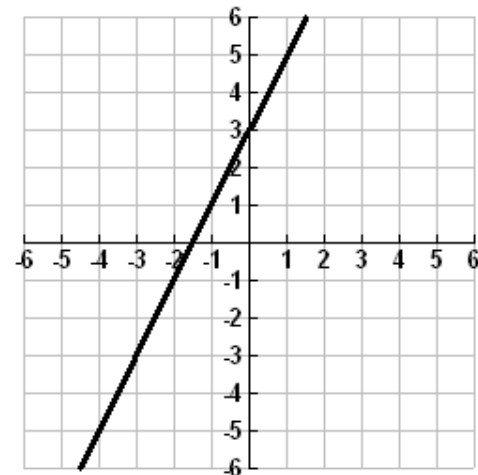
Tuesday, November 19, 2013 2nd

What is the slope of the line shown in the graph?

Answer: Choose 2 points:
(-2, -1) and (0, 3)

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{3 - (-1)}{0 - (-2)} = \frac{4}{2} = \mathbf{2}$$



Tuesday, November 19, 2013

3rd

Solve: $2n - 5 = 7$

Answer:

Tuesday, November 19, 2013

3rd

Solve: $2n - 5 = 7$

Answer: $2n - 5 = 7$

$$2n - 5 + 5 = 7 + 5$$

$$2n = 12$$

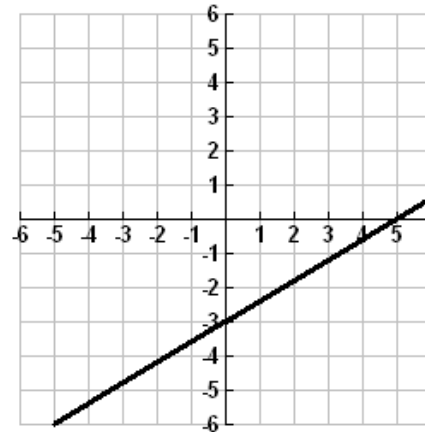
$$2n \div 2 = 12 \div 2$$

$$n = 6$$

Tuesday, November 19, 2013

4th

What is the y -intercept of the graph shown?

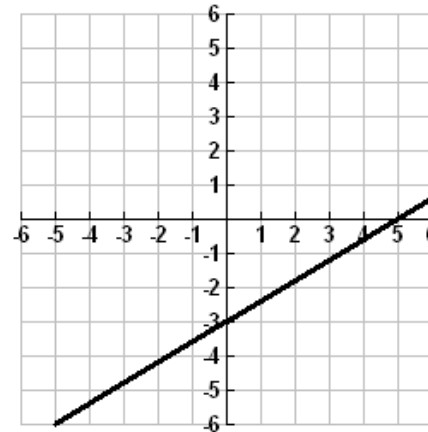


Tuesday, November 19, 2013 4th

What is the y -intercept of the graph shown?

Answer:

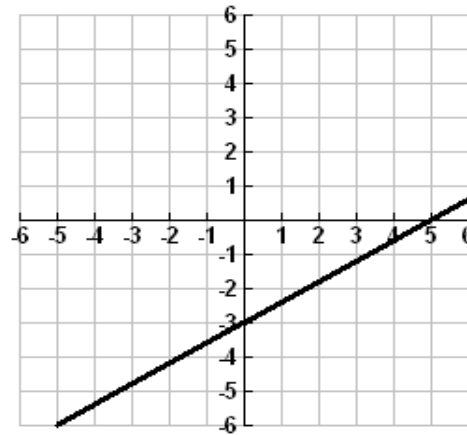
y -intercept is $(0, -3)$



Tuesday, November 19, 2013

5th

What is the x -intercept of the graph shown?



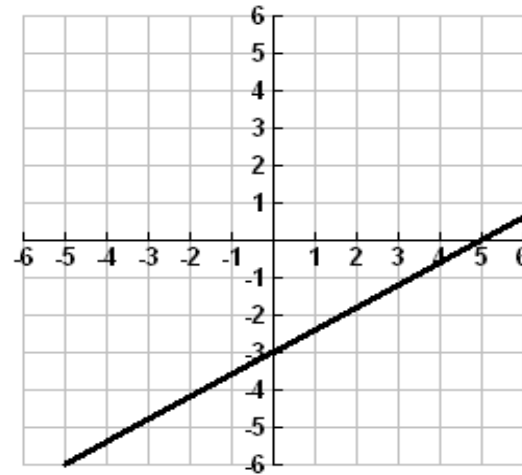
Tuesday, November 19, 2013

5th

What is the x -intercept of the graph shown?

Answer:

x -intercept is $(5, 0)$



Tuesday, November 19, 2013 6th

Find the slope of the line that passes through the points in the table.

x	-2	0	2
y	-1	0	1

Tuesday, November 19, 2013 6th

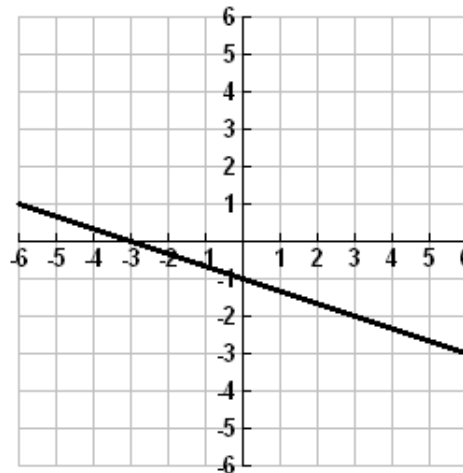
Find the slope of the line that passes through the points in the table.

x	-2	0	2
y	-1	0	1

$$\begin{aligned}\text{Answer: Slope} &= \frac{\text{change in } y}{\text{change in } x} \\ &= \frac{1-0}{2-0} = \frac{1}{2} = \frac{\mathbf{1}}{\mathbf{2}}\end{aligned}$$

Tuesday, November 19, 2013 7th

What is the slope of the line shown in the graph?



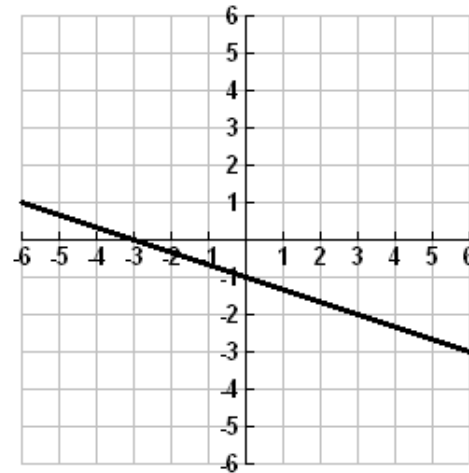
Tuesday, November 19, 2013 7th

What is the slope of the line shown in the graph?

Answer: Choose 2 points:
(-3, 0) and (3, -2)

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{-2 - 0}{3 - (-3)} = \frac{-2}{6} = -\frac{1}{3}$$



Wednesday, November 20, 2013

1st

Solve: $4x + 3 = -1$

Wednesday, November 20, 2013

1st

Solve: $4x + 3 = -1$

Answer: $4x + 3 = -1$

$$4x + 3 - 3 = -1 - 3$$

$$4x = -4$$

$$4x \div 4 = -4 \div 4$$

$$x = -1$$

Wednesday, November 20, 2013 **2nd**

$$\text{Solve } 7m - 3m - 6 = 6$$

Wednesday, November 20, 2013 2nd

$$\text{Solve } 7m - 3m - 6 = 6$$

$$\text{Answer: } 7m - 3m - 6 = 6$$

$$7m - 3m - 6 = 6$$

$$4m - 6 = 6$$

$$4m - 6 + 6 = 6 + 6$$

$$4m \div 4 = 12 \div 4$$

$$m = 3$$

Wednesday, November 20, 2013 **3rd**

$$\text{Solve } 8(c + 2) \leq 48$$

Wednesday, November 20, 2013

3rd

Solve $8(c + 2) \leq 48$

Answer: $8(c + 2) \leq 48$

$$8c + 16 \leq 48$$

$$8c + 16 - 16 \leq 48 - 16$$

$$8c \leq 32$$

$$8c \div 8 \leq 32 \div 8$$

$$c \leq 4$$

Wednesday, November 20, 2013 4th

What is the slope of the line given by the equation, $y = -3x + 2$?

Wednesday, November 20, 2013 4th

What is the slope of the line given by the equation, $y = -3x + 2$?

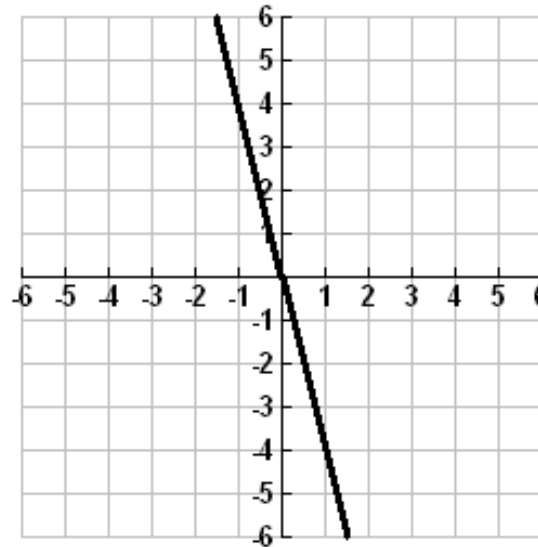
Answer: Slope is coefficient of x .

Slope = **-3**

Wednesday, November 20, 2013

5th

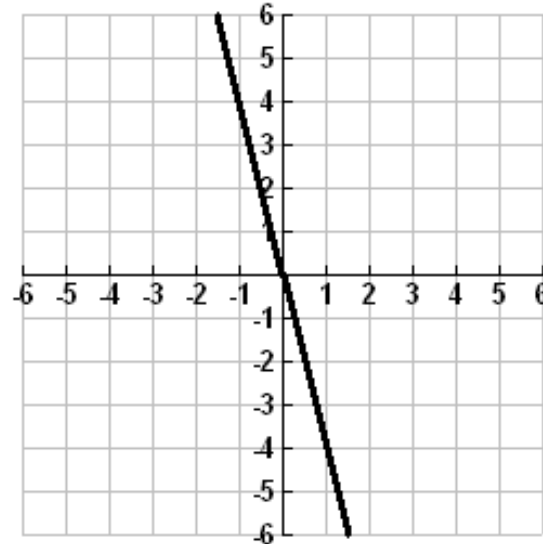
What is the slope of the line shown in the graph?



Wednesday, November 20, 2013

5th

What is the slope of the line shown in the graph?



Answer: Choose 2 points:

$(-1, 4)$ and $(0, 0)$

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{0 - 4}{0 - (-1)} = \frac{-4}{1} = -4$$

Wednesday, November 20, 2013

6th

Solve $\frac{y}{2} + 5 = -12$

Wednesday, November 20, 2013

6th

$$\text{Solve } \frac{y}{2} + 5 = -12$$

$$\text{Answer: } \frac{y}{2} + 5 = -12$$

$$\frac{y}{2} + 5 - 5 = -12 - 5$$

$$\frac{y}{2} = -17$$

$$\frac{y}{2} \cdot 2 = -17 \cdot 2$$

$$y = -34$$

Wednesday, November 20, 2013

7th

Evaluate $2a + 5$ for $a = 5$

Wednesday, November 20, 2013

7th

Evaluate $2a + 5$ for $a = 5$

Answer: $2a + 5$

$$2(5) + 5$$

$$10 + 5 = \mathbf{15}$$

Thursday, November 21, 2013 **1st**

Evaluate $\frac{z}{5} + 2$ for $z = 10$

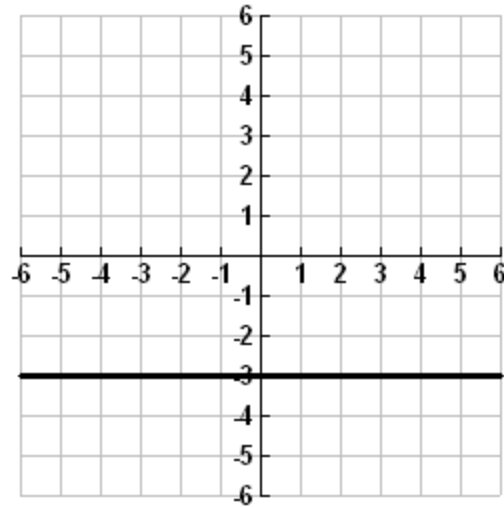
Thursday, November 21, 2013 **1st**

Evaluate $\frac{z}{5} + 2$ for $z = 10$

Answer: $\frac{z}{5} + 2$
 $\frac{10}{5} + 2$
 $2 + 2 = 4$

Thursday, November 21, 2013 **2nd**

What is the slope of the line shown in the graph?

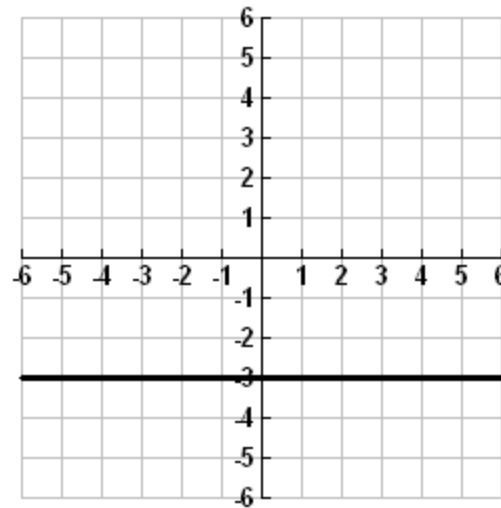


Thursday, November 21, 2013 2nd

What is the slope of the line shown in the graph?

Answer: Horizontal line has

Slope = 0



Thursday, November 21, 2013 3rd

What is the slope of the line given by the equation $x = -5$?

Thursday, November 21, 2013 3rd

What is the slope of the line given by the equation $x = -5$?

Answer: It is a vertical line. It has an **undefined slope**.

Thursday, November 21, 2013 **4th**

Evaluate: $b^2 - 4a$

when $a = 5$ and $b = 10$

Thursday, November 21, 2013 4th

Evaluate: $b^2 - 4a$

when $a = 5$ and $b = 10$

Answer: $b^2 - 4a$

$$10^2 - 4(5)$$

$$100 - 20$$

80

Thursday, November 21, 2013 **5th**

Solve $3b + 7 > -2$

Thursday, November 21, 2013 5th

Solve $3b + 7 > -2$

Answer: $3b + 7 > -2$

$$3b + 7 - 7 > -2 - 7$$

$$3b > -9$$

$$3b \div 3 > -9 \div 3$$

$$**b > -3**$$

Thursday, November 21, 2013 **6th**

What is the slope of the line that passes through the points $(-1, 4)$ and $(-1, 7)$?

Thursday, November 21, 2013 6th

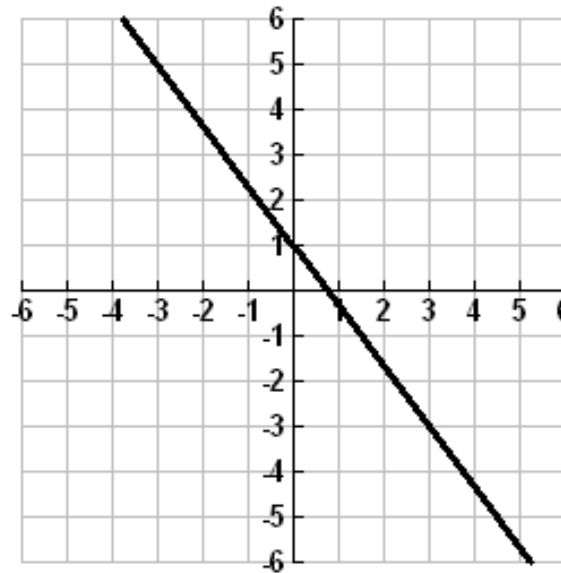
What is the slope of the line that passes through the points $(-1, 4)$ and $(-1, 7)$?

Answer: Slope = $\frac{\text{change of } y}{\text{change of } x}$

$$\frac{7-4}{-1-(-1)} = \frac{3}{0} \Rightarrow \textit{undefined}$$

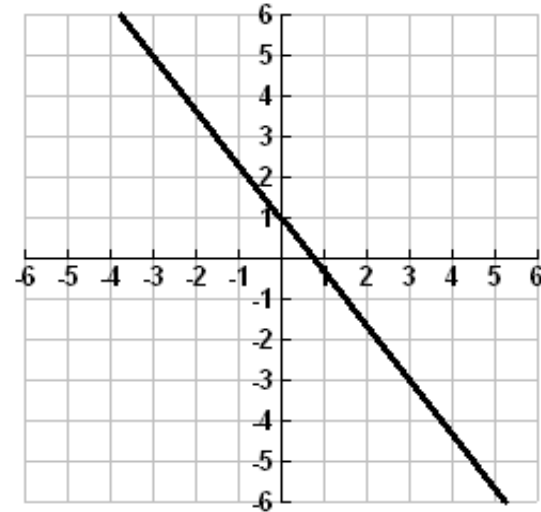
Thursday, November 21, 2013 7th

What is the slope of the line shown in the graph?



Thursday, November 21, 2013 7th

What is the slope of the line shown in the graph?



Answer: Choose 2 points:

$(-3, 5)$ and $(3, -3)$

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{-3 - 5}{3 - (-3)} = \frac{-8}{6} = -\frac{4}{3}$$

Friday, November 22, 2013 **1st**

What is the slope of the line that passes through the following points:

$(5, 2)$ $(10, 5)$ $(15, 8)$?

Friday, November 22, 2013

1st

What is the slope of the line that passes through the following points: (5, 2) (10, 5) (15, 8)?

$$\text{Answer: slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{5 - 2}{10 - 5} = \frac{3}{5}$$

Friday, November 22, 2013

2nd

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

Friday, November 22, 2013

2nd

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

Answer: Slope = $\frac{\text{change of } y}{\text{change of } x}$

$$\frac{5-5}{6-2} = \frac{0}{4} = \mathbf{0}$$

Friday, November 22, 2013

3rd

Solve: $\frac{m}{3} + (-3) \geq 12$

Friday, November 22, 2013

3rd

Solve: $\frac{m}{3} + (-3) \geq 12$

Answer: $\frac{m}{3} + (-3) \geq 12$

$$\frac{m}{3} + (-3) + 3 \geq 12 + 3$$

$$\frac{m}{3} \cdot 3 \geq 15 \cdot 3$$

$$m \geq 45$$

Friday, November 22, 2013

4th

Solve: $\frac{c}{-4} + 8 < -6$

Friday, November 22, 2013

4th

Solve: $\frac{c}{-4} + 8 < -6$

Answer: $\frac{c}{-4} + 8 < -6$

$$\frac{c}{-4} + 8 - 8 < -6 - 8$$

$$\frac{c}{-4} < -14$$

$$\frac{c}{-4} \cdot (-4) > -14 \cdot (-4)$$

Note that the sign of inequality switches because of multiplying by a negative number.

$$c > 56$$

Friday, November 22, 2013

5th

What is the slope of the line given by the equation $y = x + 2$?

Friday, November 22, 2013

5th

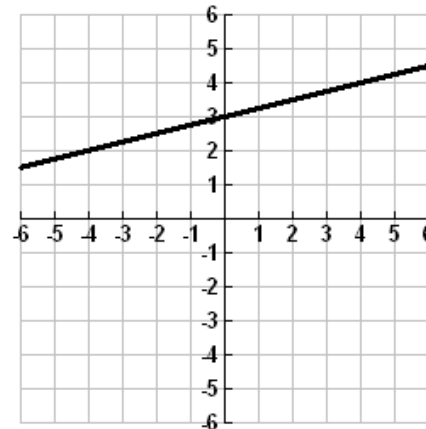
What is the slope of the line given by the equation $y = x + 2$?

Answer: Slope = **1**

Friday, November 22, 2013

6th

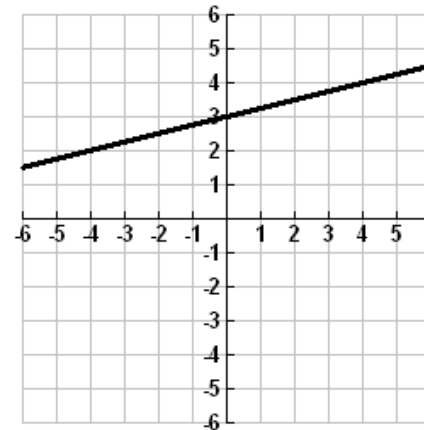
What is the slope of the line shown in the graph?



Friday, November 22, 2013

6th

What is the slope of the line shown in the graph?



Answer: Choose 2 points:

$(-4, 2)$ and $(4, 4)$

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{4 - 2}{4 - (-4)} = \frac{2}{8} = \frac{1}{4}$$

Friday, November 22, 2013

7th

Write the equation of a line with a slope of 2 and a y -intercept of -3.

Friday, November 22, 2013

7th

Write the equation of a line with a slope of 2 and a y -intercept of -3.

Answer:

$$y = mx + b$$

where m = slope and b = y -intercept

$$**y = 2x - 3**$$