WARM UP

Write an equation for each function. Tell what each variable you use represents.

1. The length of a box is 4 in. more than three times the height.

2. The number of cards is 3 less than the number of stamps.

MATH COURSE I

Graph Functions

November 28, 2012

Mrs. Culverwell

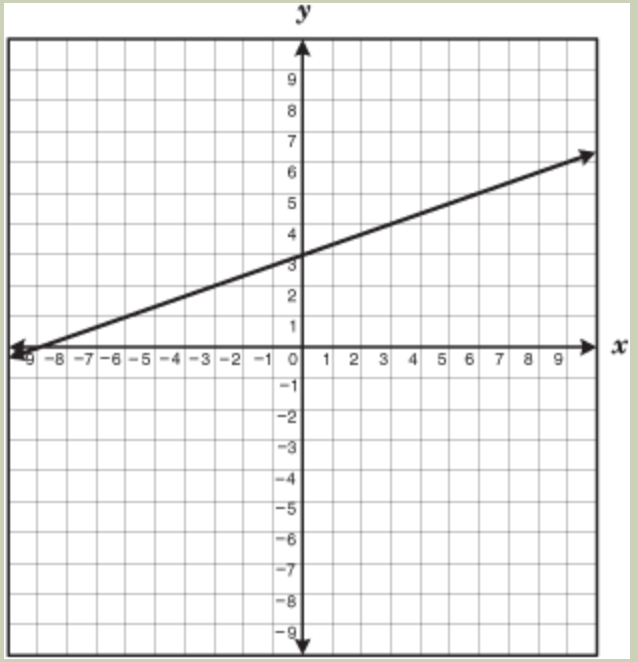
VOCABULARY

Ordered Pair: numbers used to locate a point on a coordinate grid (x,y)

Linear Function: an equation when graphed, forms a straight line

x axis: horizontal (left to right)

y axis: vertical (up and down)



SOLUTIONS

Use the given x-values to write the solutions of the equation as ordered pairs.

y= 4*x* + 2; *x* = 1, 2, 3, 4

x	4x + 2	*y*
1	4(1) + 2	
2		
3		
4		

Ordered Pairs:

(1,)

(2,)

(3,)

(4,)

PRACTICE

$y = 5x + 3;$ $x = 2, 3, 4$

PRACTICE

$y = 6x - 2;$ $x = 3, 4, 5$

IS IT A SOLUTION?

Determine if the ordered pair is a solution.

Example: $y = 5x;\ (4,20)$

Step 1: Substitution $20 = 5(4)$

Step 2: Solve $20 = 20$ (yes)

PRACTICE

Determine if the ordered pair is a solution.

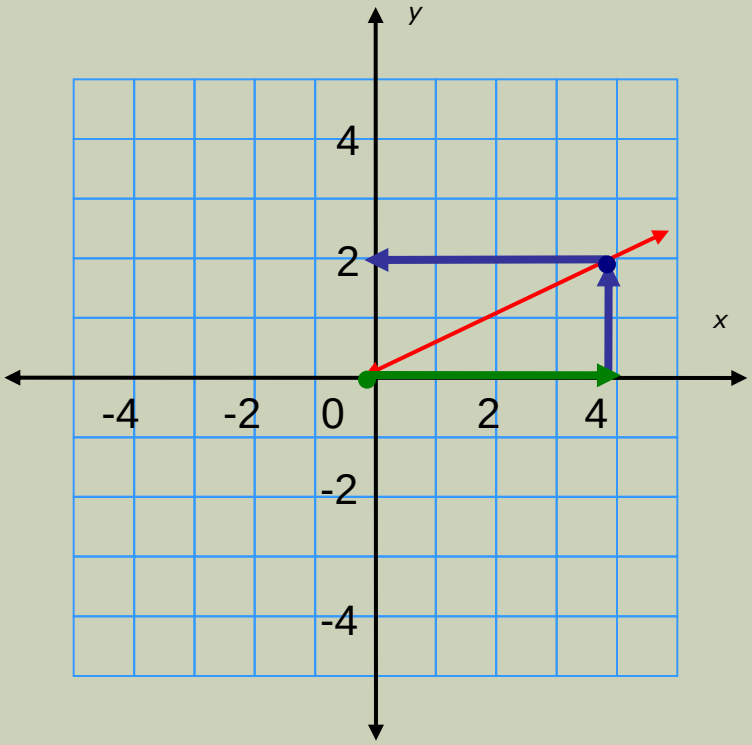
1) $y = x + 1$; (2,3)

2) $y = 2x - 7$; (6,4)

3) $y = 3x - 12$; (5, 1)

Use the graph of the linear function to find the value of *y* for the given value of *x*.

***x* = 4**



Start at the origin and move 4 units right.

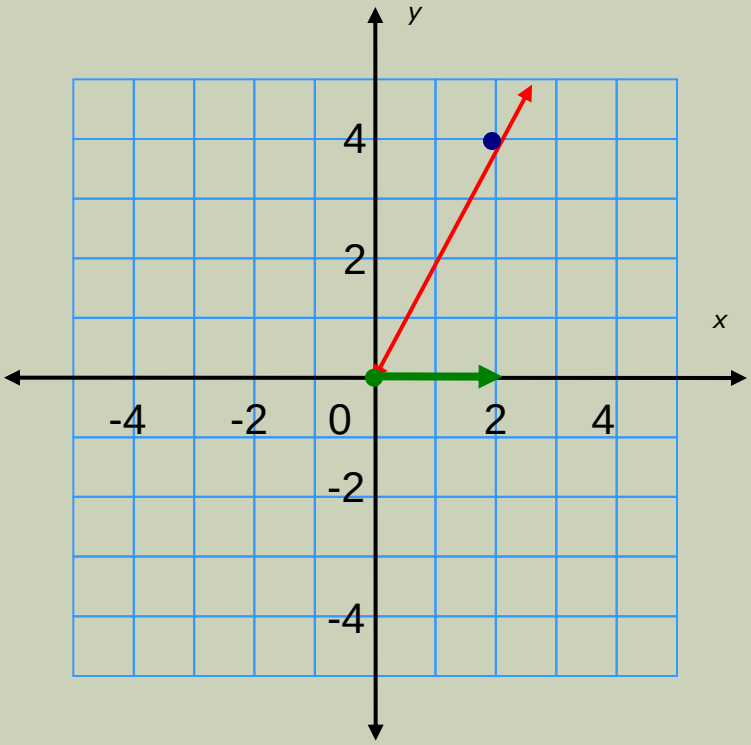
Move up until you reach the graph. Move left to find the y-value on the y-axis.

When $x = 4$, $y = 2$.

The ordered pair is (4, 2).

Use the graph of the linear function to find the value of *y* for the given value of *x*.

***x* = 2**

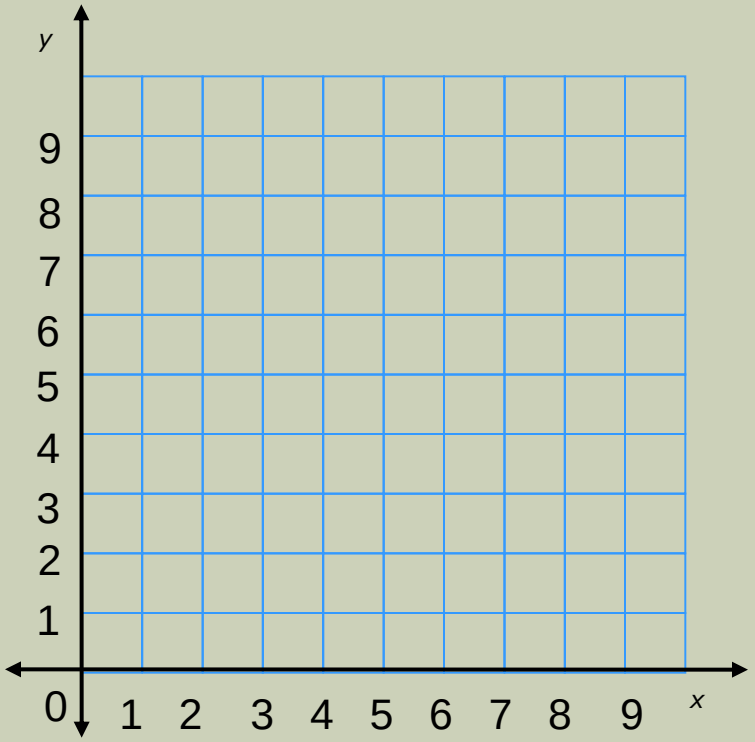


GRAPH FUNCTIONS

Example: $y = 3x + 2$

Step 1: Create a table.
Step 2: Write ordered pairs.
Step 3: Graph ordered pairs.
Step 4: Draw the line.

x	y
1	
2	
3	
4	



PRACTICE

1) $y = 2x + 5$
2) $y = 3x + 3$
3) $y = 8 - x$
4) $y = x + 4$
5) $y = 2x - 1$

x	y
1	
2	
3	
4