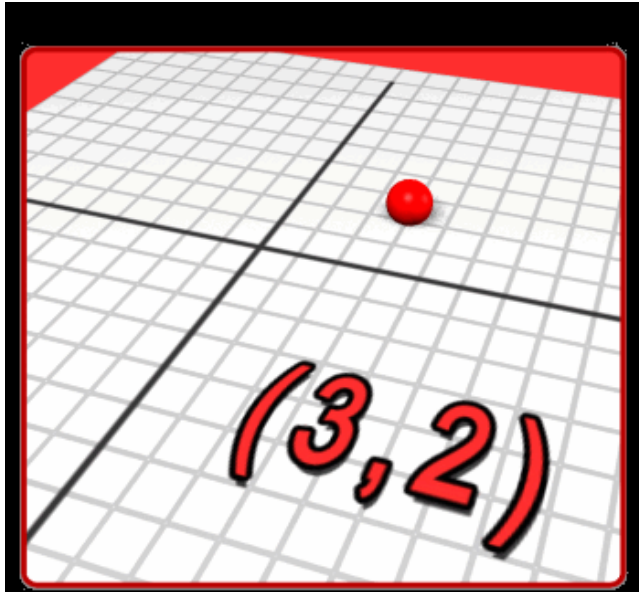




Put on your dancing pants!

It's time for Ordered Pairs  
and Graphing!



Ordered Pairs are coordinates on a graph. They are listed in parenthesis, separated by a comma. The ordered pairs are (X,Y). X is always the first number and Y is always the second number.

**Determine whether the ordered pair is a solution of  $y = 4x - 1$ .**



Substitute the values!

**1** **(3, 11)**

$$11 = 4(3) - 1$$

$$11 = 12 - 1$$

$$11 = 11$$

Determine whether the ordered pair is a solution of  $y = 4x - 1$ .

1 <sup>x, y</sup> (10, 3)

$4x - 1 = y$

$3 = 4(10) - 1$

$3 = 40 - 1$

$3 = 39$

no



Determine whether the ordered pair is a solution of  $y = 4x - 1$ .

1 (11, 43)

~~$43 = 4 \cdot 11 - 1$~~   $43 = 4(11) - 1$

$$43 = 44 - 1$$
$$43 = 43$$



$$43 = 4 \cdot 11 - 1$$

Use the given values to make a table of solutions.

Use a decimal for the comma on your responder!

A.  $y = 7x$  for  $x = 1, 2, 3, 4$



Substitute!

$x$	$7x$	$y$	$(x, y)$
1	$7(1)$	7	$(1, 7)$
2	$7(2)$	14	$(2, 14)$
3	$7(3)$	21	$(3, 21)$
4	$7(4)$	28	$(4, 28)$

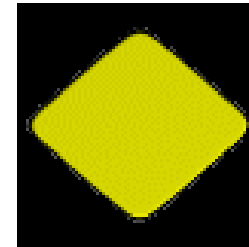
- 4
- 5
- 6
- 7

$12, 7(12), 84, (12, 84)$

Use the given values to make a table of solutions.

B.  $n = 6m - 5$  for  $m = 1, 2, 3, 4$

$m$	1	2	3	4
$6m - 5$	$6(1) - 5$	$6(2) - 5$	$6(3) - 5$	
$n$	1	7	13	
$(m, n)$	(1, 1)	(2, 7)	(3, 13)	



Use a decimal for the comma on your responder!

8      9      10      11

**A salesman wants to make a 20% profit on everything he sells. The equation for the sales price  $p$  is  $p = 1.2w$ , where  $w$  is wholesale cost.**

**12** What will be the sales price of a sweater with a wholesale cost of \$48?

$$\begin{array}{r} 48 \\ 1.2 \\ \hline 96 \\ 480 \\ \hline 57.6 \end{array} \quad \$57.60$$



# Vocabulary we will use!

coordinate plane

$x$ -axis

$y$ -axis

$x$ -coordinate

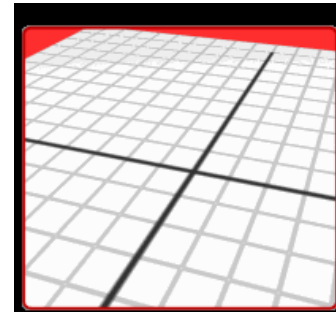
$y$ -coordinate

origin

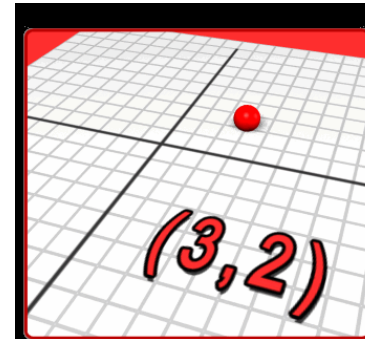
graph of an equation



The **coordinate plane** is like a map formed by two number lines, the **x-axis** and the **y-axis**, that intersect at right angles.



Ordered pairs are the locations, or points, on the map. The **x-coordinate** and **y-coordinate** of an ordered pair tell the direction and number of units to move.



x-coordinate  
*move right or left*

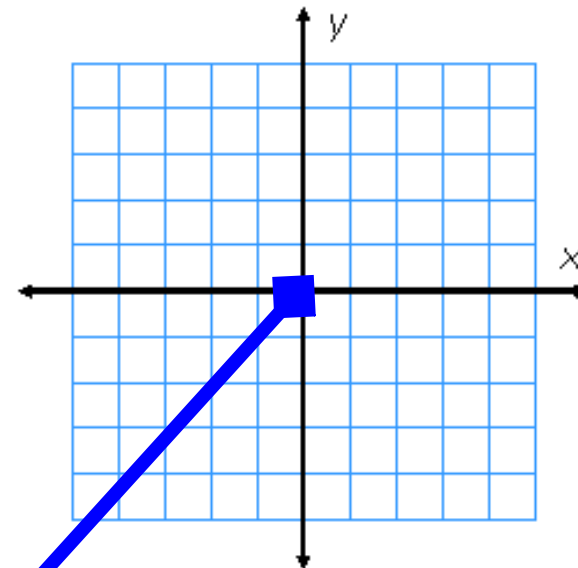
**(*x*, *y*)**

y-coordinate  
*move up or down*

**(2, 3)**

move right  
2 units

move up  
3 units

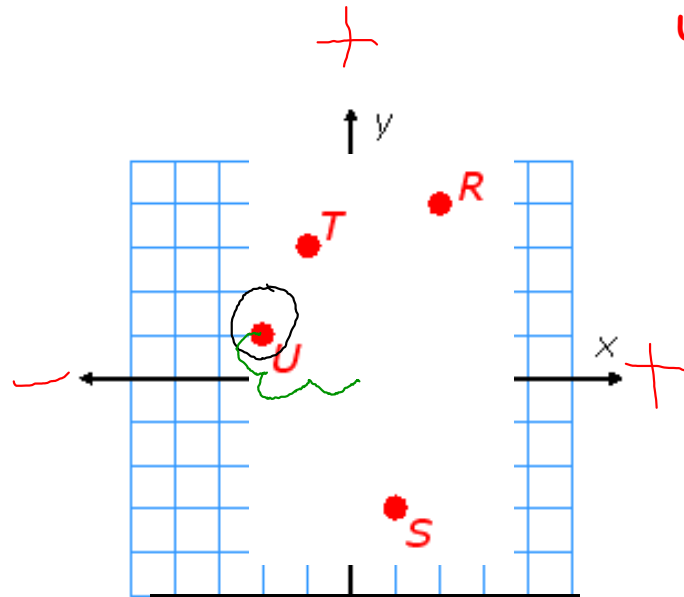


To plot an ordered pair, begin at the **origin**, the point (0, 0), which is the intersection of the x-axis and the y-axis.

**Put your homework  
assignment in the wire basket  
beneath the responders!  
Make sure your name is on  
your homework!**

## Give the coordinates of each point.

Use a decimal for the comma on your responder!

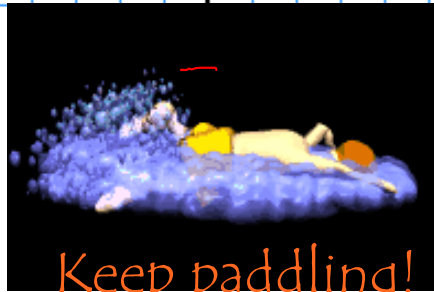


13 Point R is  $(2, 4)$ .

14 Point S is  $(1, -3)$ .

15 Point T is  $(-1, 3)$ .

16 Point U is  $(-2, 1)$ .



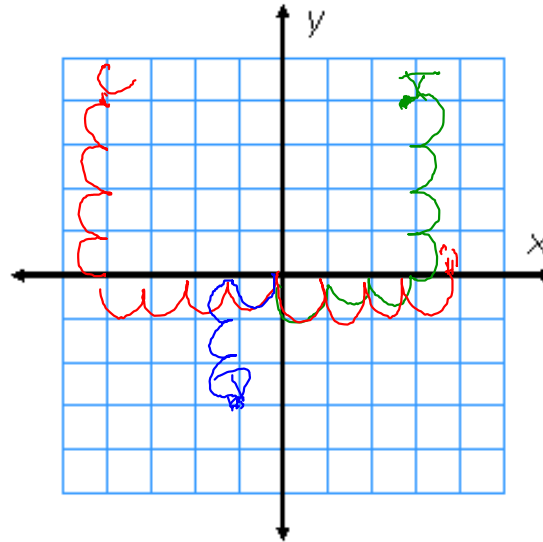
**Graph each point on the coordinate plane.  
Label the points A-D.**

A.  $(3, 4)$  ✓

B.  $(4, 0)$  ✓

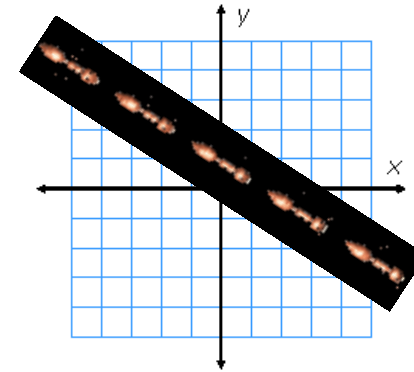
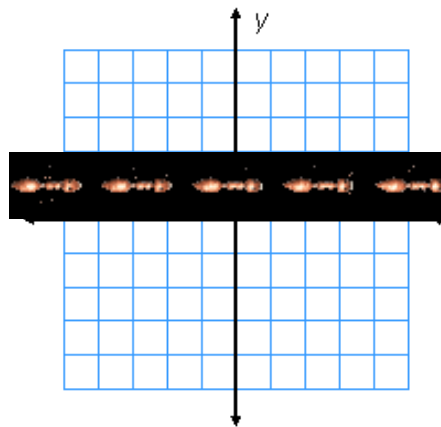
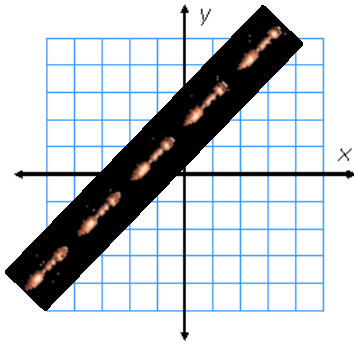
C.  $(-4, 4)$  ✓

D.  $(-1, -3)$  ✓



Where's my home?

First, let's get something straight! Graphing Linear Equations really isn't hard. Linear means line, so all our coordinates will make a straight line!



**Complete the table of ordered pairs. Graph the equation on a coordinate plane.**

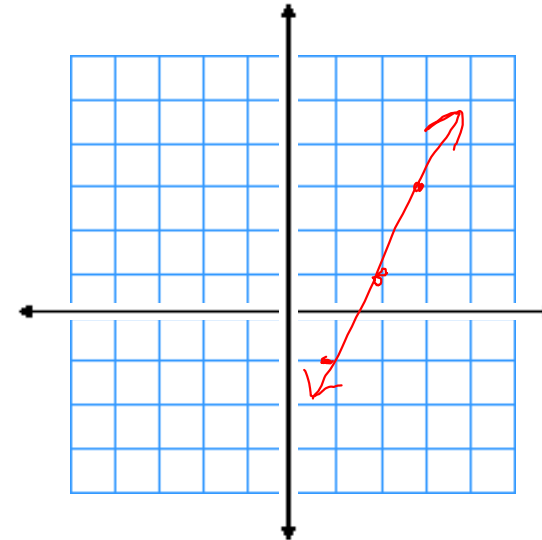
B.  $y = 2x - 3$

$x$	$2x - 3$	$y$	$(x, y)$
1	$2(1) - 3$	-1	(1, -1)
2	$2(2) - 3$	1	(2, 1)
3	$2(3) - 3$	3	(3, 3)

17

18

19



Easy as Pie!



Let's move on to interpreting graphs! The graph will tell a story about what's going on. It's sort of like a picture book!



The table gives the speeds in mi/h of three cars at given times. Tell which car corresponds to the situation.

Time	1:00	1:05	1:10	1:15	1:20
Car 1	50	50	30	30	0
Car 2	55	50	50	55	50
Car 3	55	10	0	0	55



- 24** Mr. Lee is traveling on the highway, and he pulls over to make a call on his cell phone. Then he gets back onto the highway.
- 25** Mrs. Healy is driving on the freeway between 1:00 and 1:20 and encounters no traffic.

The table gives the speed in mi/h of three runners at the given times. Tell which runner corresponds to the situation.



**26** Jamie begins the race, and soon feels a pain in a muscle. He is unable to complete the race.

**27** Melissa builds up her speed during the beginning of the race. She maintains her running speed for the remainder of the race.

Time	8:00	8:10	8:20	8:30	8:40
Runner 1	6	7	7	7	7
Runner 2	9	6	0	0	0
Runner 3	8	3	8	3	8

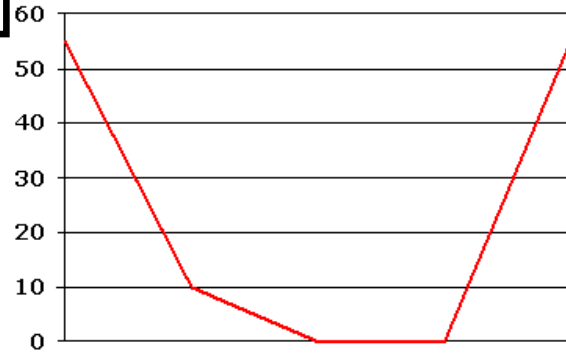
Now, lets look at a graph and see if we can match the story!



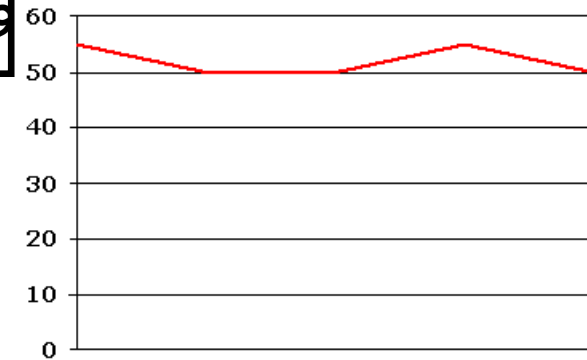
Time	1:00	1:05	1:10	1:15	1:20
Car 1	50	50	30	30	0
Car 2	55	50	50	55	50
Car 3	55	10	0	0	55



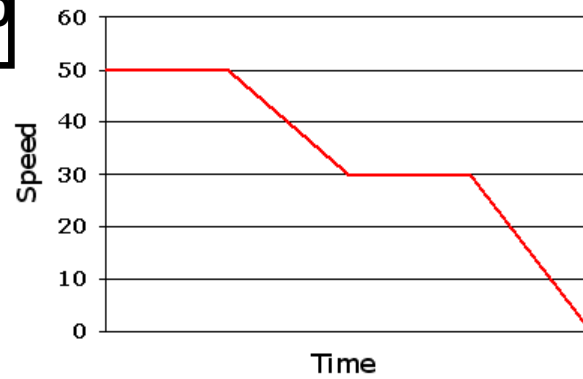
28



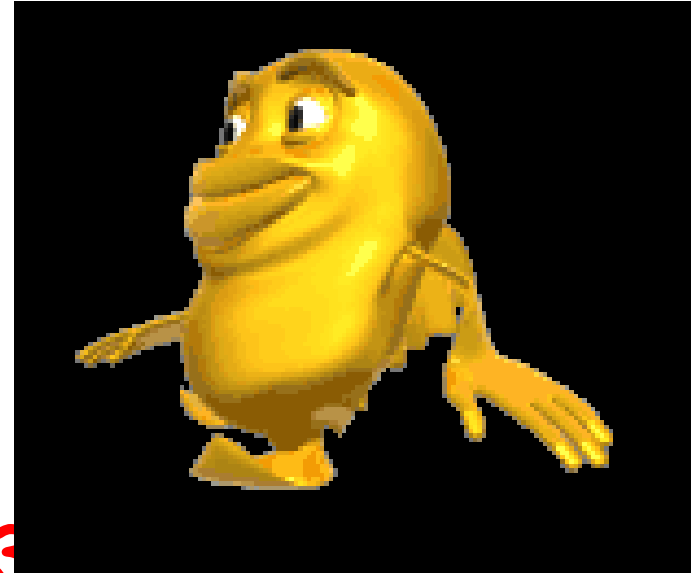
29



30



## Assignment



(1.8) Pg 40 #13-24, 33 - 38

(1.9) Pg 46 #4, 5, 11 - 16