1.

Stan's solution to an equation is shown below.

Given:	$n+8(n+20)=110$
Step 1:	$n+8n+20=110$
Step 2:	$9n+20=110$
Step 3:	$9n=110-20$
Step 4:	$9n=90$
Step 5:	$\frac{9n}{9}=\frac{90}{9}$
Step 6:	$n=10$

Which statement about Stan's solution is true?

A Stan's solution is correct.

B Stan made a mistake in Step 1.

C Stan made a mistake in Step 3.

D Stan made a mistake in Step 5.

2. Some ordered pairs for a linear function of x are given in the table below.

x	y
0	-1
2	3
4	7
6	11

Which of the following equations was used to generate the table above?

A $y=2x+1$

B $y=2x-1$

C $y=3x-2$

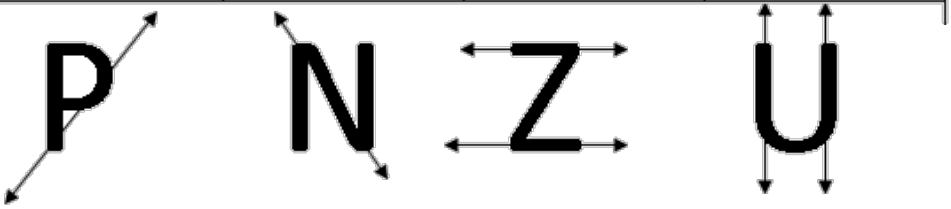
D $y=4x-3$

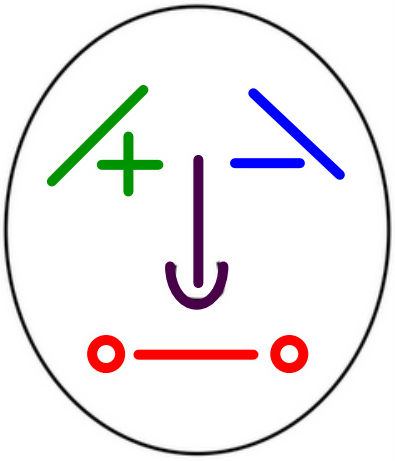
$$y = mx + b$$

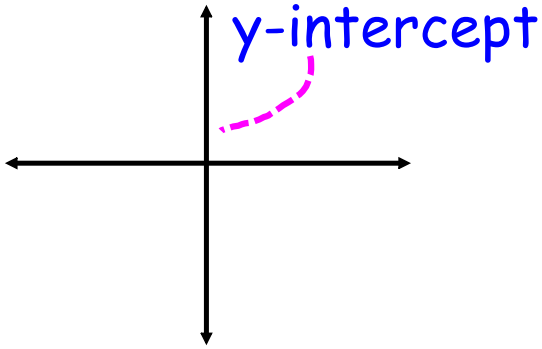
m Rate of change or Slope

b Flat Fee or Initial Rate or Y-Intercept

The Four Different Types of Slopes for Directions			
Positive Slope	Negative Slope	Zero Slope	Undefined Slope
Increasing	Decreasing	Horizontal Line	Vertical Line





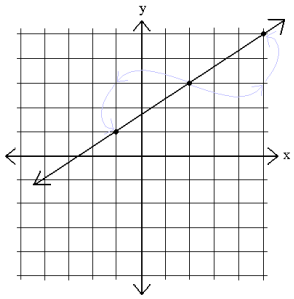


The y-intercept is easy to see (it stays away from the x)...but sometimes you have to find the SLOPE.

You might only have two points to work from.

(3,5)(8,2)

You might have to find it on a graph.



You might have to identify it from the equation.

$y = \frac{1}{4}x + 3$

You might have to find it on a table.

x	y
-5	15
-4	13
-3	11
-2	9
-1	7
0	5
1	3
2	1
3	-1
4	-3

Ordered Pair

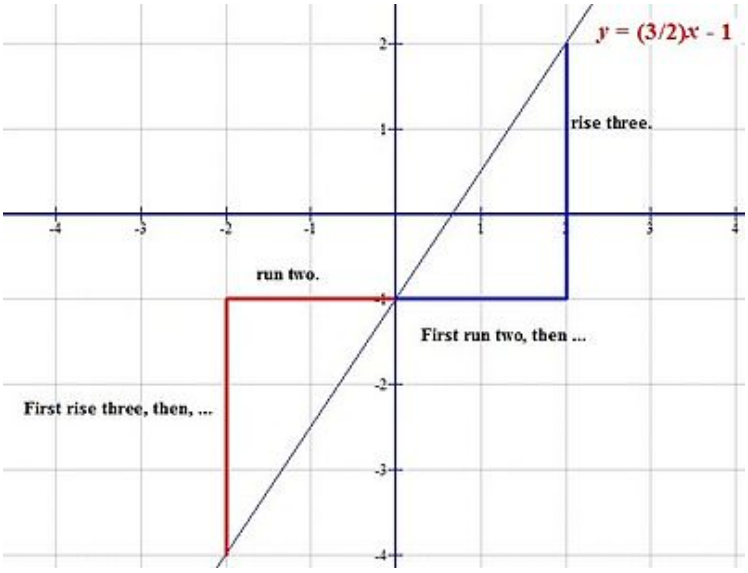
(1, 5) (7, 9)

(2, -3) (-6, 8)

On a Graph

The slope of a line is the ratio of the change in y over the change in x....

$$\text{slope} = \frac{\text{rise}}{\text{run}} \quad \frac{y}{x}$$



http://nrich.maths.org/content/id/4901/circleAngles.swf

On a table

PHYSICAL SCIENCE The table below shows the relationship between the number of seconds y it takes to hear the thunder after a lightning strike and the distance x you are from the lightning.

Distance (x)	0	1	2	3	4	5
Seconds (y)	0	5	10	15	20	25

Cars Washed	
Number	Money ($)
5	40
10	80
15	120
20	160

As an Equation

$y = 3x - 8$

$y = 9 - 2/3x$

$y = 6$

$x = 4$

Slope
Rise/Run

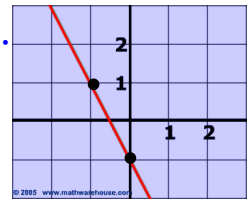
Ordered Pair

1. (2,5) (4, 6)

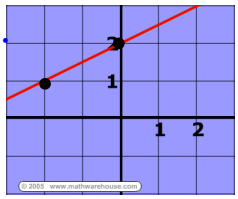
2. (-3, 2) (8, -4)

Graph

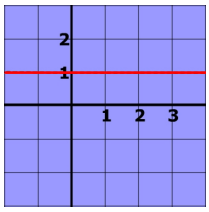
3.



4.



5.



Table

6.

Temperature (°F)	54	57	60	63
Time	6 A.M.	8 A.M.	10 A.M.	12 P.M.

7.

Boxes (x)	3	5	7	9
Packs (y)	24	40	56	72

Equation $y=mx+b$

8. $y = 2x - 8$

9. $y = -6 - 1/2x$

10. $x = -4$

11. $y = 9$

Ordered Pair

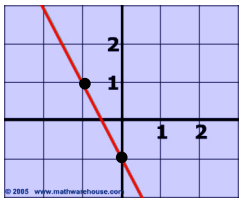
KEY

1. (2,5) (4, 6) $\frac{1}{2}$

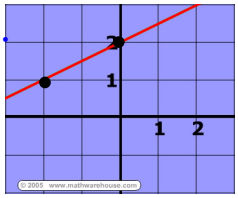
2. (-3, 2) (8, -4) $-\frac{6}{11}$

Graph

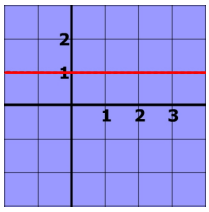
3. -2



4. $\frac{1}{2}$



5. zero



Slope
Rise/Run

Table

6.

Temperature (°F)	54	57	60	63
Time	6 A.M.	8 A.M.	10 A.M.	12 P.M.

$\frac{2}{3}$

7.

Boxes (x)	3	5	7	9
Packs (y)	24	40	56	72

$\frac{16}{2} = 8$

Equation $y = mx + b$

8. $y = 2x - 8$ 2

9. $y = -6 - 1/2x$ $-\frac{1}{2}$

10. $x = -4$ undefined

11. $y = 9$ zero