Name: \_

What is the equation for this chart? Remember yesterday!

1	What is the equation for this chart? Remember	vesterday!
з	,	yesterday;

X	Y
4	6
6	12
8	18
10	74

X	γ
	6
2	12
3	18
4	24

What is the y-intercept of the line given by

$$5x - 8y = 48$$
?

- a.) 6
- b.) 48/5
- c.) 48
- d.) -6
- e.) -48/5

What is the slope of a line that goes through points:

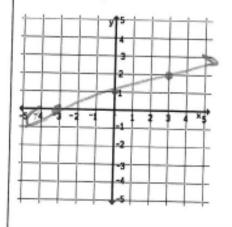
(-5,3) and (2, 4)?

Plug in values for x and solve for y!

$$Y = \frac{1}{2}x + 3$$

χ	γ
1	
2	
3	
4	

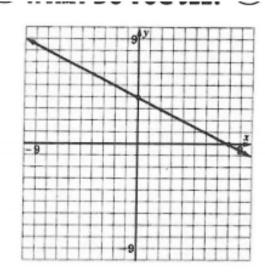
What is the slope of this line?





What is ½ of 6?	Which is greater? Use <, >, or = -610	Circle the slope! Underline the y intercept!  Y = 8x - 5	Combine like terms: 4n - 2n =
What two numbers have a sum of 7 and a product of 12?	Solve: 5x - 2= 13	Use the distributive property: $2(x-4) = \underline{\hspace{1cm}}$	What are the coordinates of the following points?
Positive or negative slope?	What is the slope of (3,2) and (-4,2)	Graph on the number line: x < -3 $(+ + + + + + + + + + + + + + + + + + +$	A= B=  Solve for y  3y = 12x + 6
What is the y intercept!!  X Y 6 4 4 6 2 8 0 10	Solve -10 + 4 = -3 - 8 =	Place on the number line:  - 3 ½  - 3 ½  - 3 ½	Q. Why is 2+2=5 like your left foot?

# What do you see?



4	
1	
-	•
_	-



				N	UMBER SE	NSE			
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80



### FIND THE SLOPE OF EACH PAIR OF COORDINATES. REMEMBER CHANGE IN Y OVER CHANGE IN X!!!

X	Y
1	-3
2	-8

X	Y
0	9
1	10

. X	Y
-4	3
2	1

X	Y
3	-8
1	D

X	Y
-4	1
-2	5

χ	Y
-3	9
3	D

X	Υ.
-3	8
1	12

χ	Y
5	100
10	200

X	Y
-3	2
2	-3

χ	Y
2	4
0	-4

X	Y
6	-3
-2	-1

-3

X	Υ Υ
6	3
11	18

χ	Y
-7	2
-4	3

~	X
6)	-5
	-4

Χ	Y
2	-5
0	3

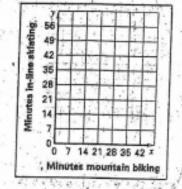
X	Y
1	3
2	4

Objective: SWBAT find a line's X and Y intercepts

#### When would I use this in real life?!!?!?!?

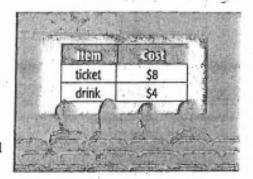
#### WHAT DO INTERCEPTS MEAN????

- Durning Calories A man burns 10 calories per minute mountain biking and 7.5 calories per minute in-line skating. His goal is to burn approximately 420 calories daily. This situation can be represented by the equation 10x + 7.5y ≡ 420 where x is the number of minutes spent mountain biking and y is the number of minutes spent in-line skating.
  - a. Find the intercepts of the graph of the equation.
     Graph the equation.



- b. What do the intercepts mean in this situation?
- c. What are three possible numbers of minutes of biking and skating the man could do to reach his goal

MOVIES Mrs. Hodges spent \$80 on movie tickets and drinks for her son and his friends. The total cost of x movie tickets and y drinks is represented by the function 8x + 4y = 80.



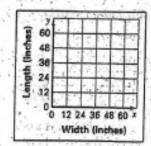
- Describe a method you could use to graph the function.
   Then graph the function.
- 2. What do the points (0, 20) and (10, 0) represent?

Rabbit Hutch The eage that you keep your rabbit in has a perimeter of 118 inches. Let x be the cage's width (in inches) and let y be its length (in inches).

e. Write an equation for the perimeter.

Branch Branch Comment

Find the intercepts of the graph of the equation you wrote.
Then graph the equation.



Examples 1 and 2 State the x- and y-intercepts of each function.

1. 
$$5x + 4y = 20$$

2. 
$$6x - 2y = 18$$

3. 
$$-3x + 6y = 12$$

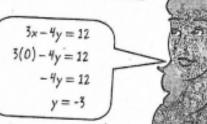
4. 
$$-4x - 6y = 24$$

5. 
$$\frac{3}{2}x + 10y = 15$$

5. 
$$\frac{3}{2}x + 10y = 15$$
 6.  $\frac{3}{4}x - \frac{3}{5}y = 12$ 

Examples 3 and 4 DISPLAYS A store sells juice boxes in packages of 6 boxes and 8 boxes. They have 288 total juice boxes. This is represented by the function 6x + 8y = 288. Graph the function. Then interpret the x- and y-intercepts.

 FIND THE ERROR Carmen is finding the x-intercept of the function 3x - 4y = 12. Find her mistake and correct it.



25. WRITE MATH Describe two different methods for graphing a function. Which method do you prefer to use? Why?

Metch the equation with its intercepts.

22. 
$$7y = 28 - 4x$$

23. 
$$7x = 4y + 28$$

$$24. \ 4y = 7x + 28$$

### FIND THE SLOPE OF EACH PAIR OF COORDINATES. REMEMBER CHANGE IN Y OVER CHANGE IN X!!!

χ	Y
1	-3
2	-8

χ	γ
D	9
1	10

X	Y
-4	3
2	1

χ	γ
3	-8
1	0

X	Y
-4	1
-2	5

X	Y
-3	9
3	0

X	γ
0	0
5	10

X	Y
-3	8
1	12

X	γ
5	100
10	200

X	Y
-6	2
2	-2

X	γ
-3	2
2	-3

X	γ
2	4
0	-4

X	Y
6	-3
-2	-1

X	γ
6	3
11	18

X	γ
-7	2
-4	3

X	γ
-5	-3
-4	-3

X	Y
2	-5
0	3

χ	γ
1	3
2	4

**ü** Show your work (MARK UP THE TABLES!!)

Name:

### **Exit Ticket**

- 1. (A) (B) (C) (D) (E)
- 2. (A) (B) (C) (D) (E)
- 3. (A) (B) (C) (D) (E)

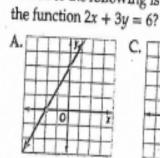
The function 12x - 10y = 600 represents the total amount Student Council spent on supplies for a school fundraiser. What is the x-intercept of the function?

C. 50

D. 60



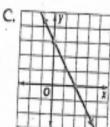
Which of the following is the graph of

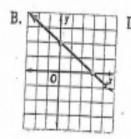


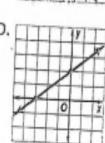
Criteria for Success:

**ü** Try every problem

**ü** Find the correct answer







The y-intercept of which of the following functions is 5?

$$-4x - 5y = 30$$

$$3 \cdot 6 \cdot 4x - 6y = 30$$

$$\angle$$
 M.  $4x + 5y = 30$ 

$$3 - 4x + 6y = 30$$