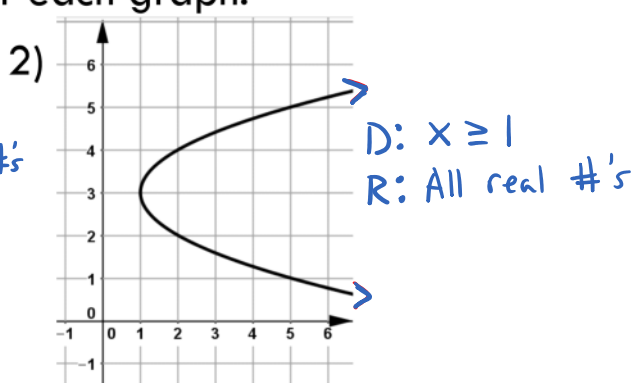
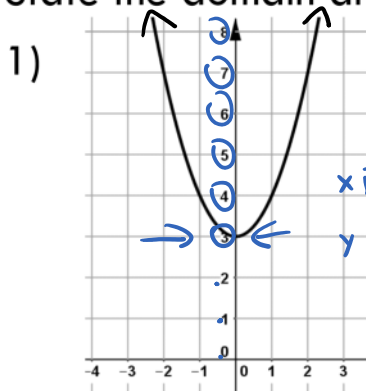


DAILY QUEST:

State the domain and range for each graph.



3) Solve for x given the $f(x) = g(x)$; $f(x) = 7x + 1$; $g(x) = 3x - 7$

$$f(x) = 7x + 1$$

$$g(x) = 3x - 7$$

$$\begin{aligned} f(x) &= 7(-2) + 1 \\ &= -14 + 1 \\ &= -13 \end{aligned}$$

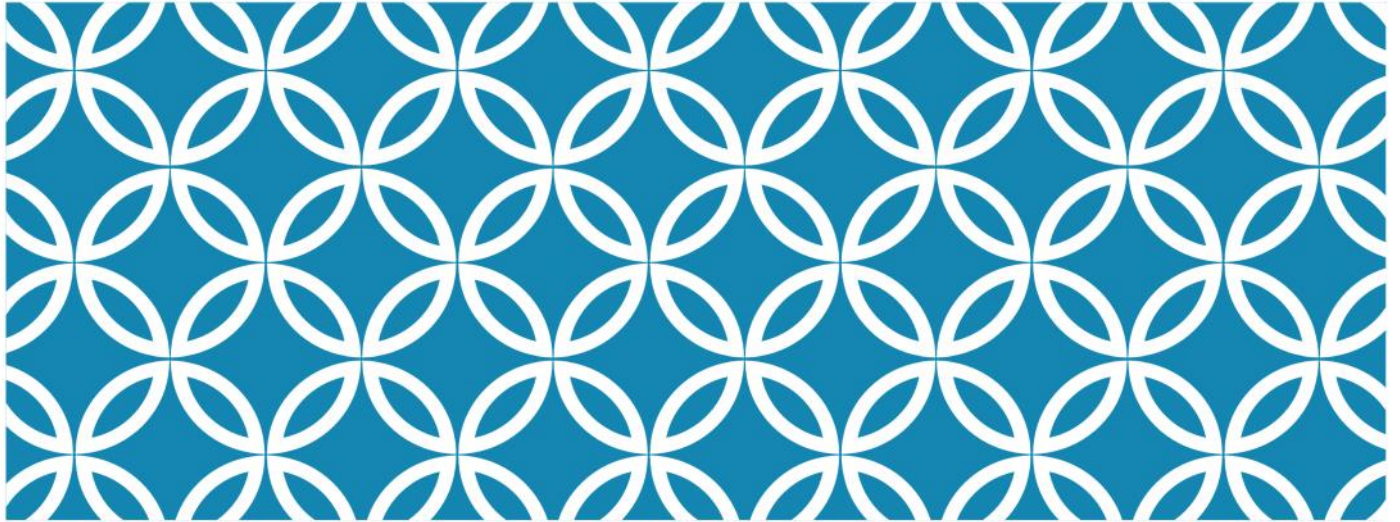
$$(-2, -13)$$

$$\begin{aligned} 7x + 1 &= 3x - 7 \\ -3x & \quad -3x \end{aligned}$$

$$\begin{aligned} 4x + 1 &= -7 \\ -1 & \quad -1 \end{aligned}$$

$$4x = -8$$

$$\boxed{x = -2}$$



LESSON 6.1

2. GRAPHING LINEAR FUNCTIONS(TABLE)

3. Domain

Goal: To find, graph, identify key features of linear functions mathematically and in real world context.

Obj: SWBAT graph linear functions.

Obj: SWBAT stay the domain of the function.

PROBLEM 1:

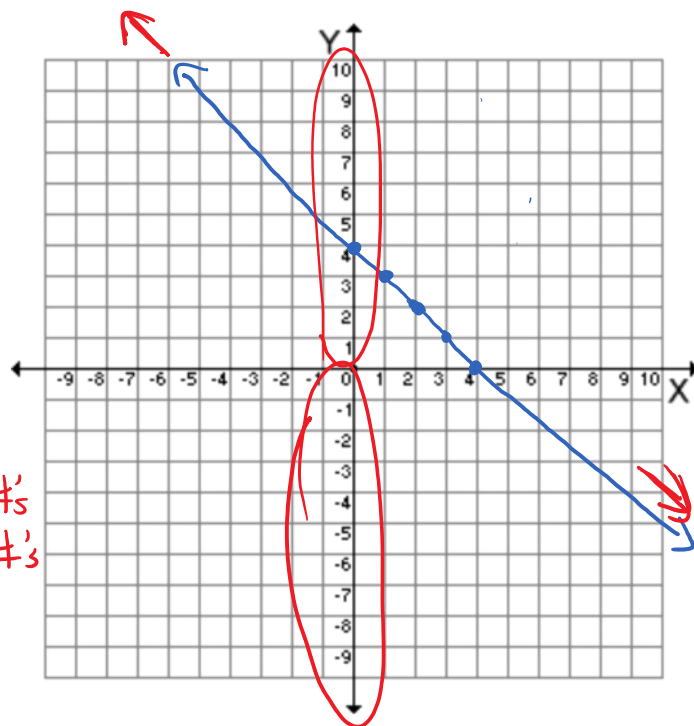
Graph each line.

$x + y = 4$

X	Y
→ 0	4
→ 1	3
→ 2	2
→ 3	1
→ 4	0

Is the line a function?
function

Domain: All real #'s
Range: All real #'s



PROBLEM 1A:

Graph each line.

$y = 8 \rightarrow 0x + y = 8$
 $0 + y = 8$

X	Y
0	8
1	8
2	8
3	8
4	8

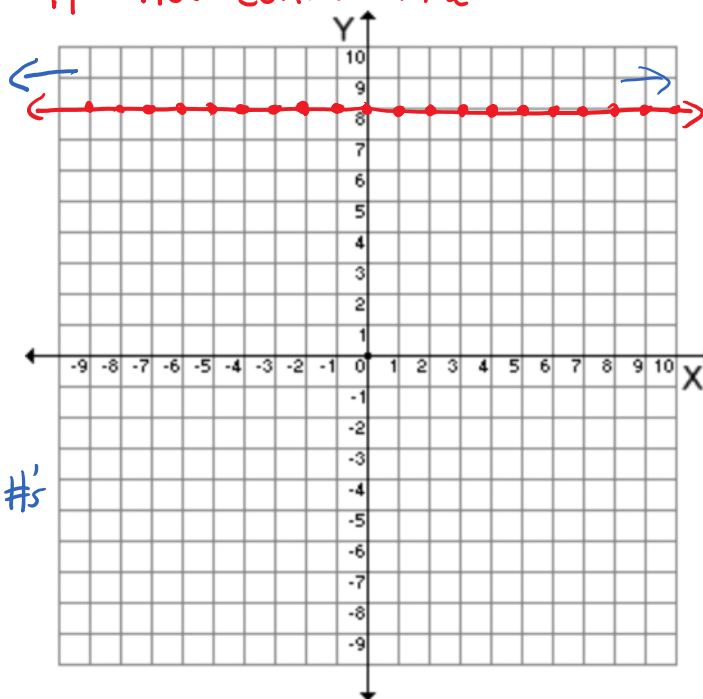
100 8

Is the line a
 function?
 function

Domain: All real #'s

Range: {8}

$y = \#$ Horizontal line



PROBLEM 1B:

$x = \#$ Vertical line

Graph each line.

$x = -1 \rightarrow x + 0y = -1$
 $x + 0 = -1$

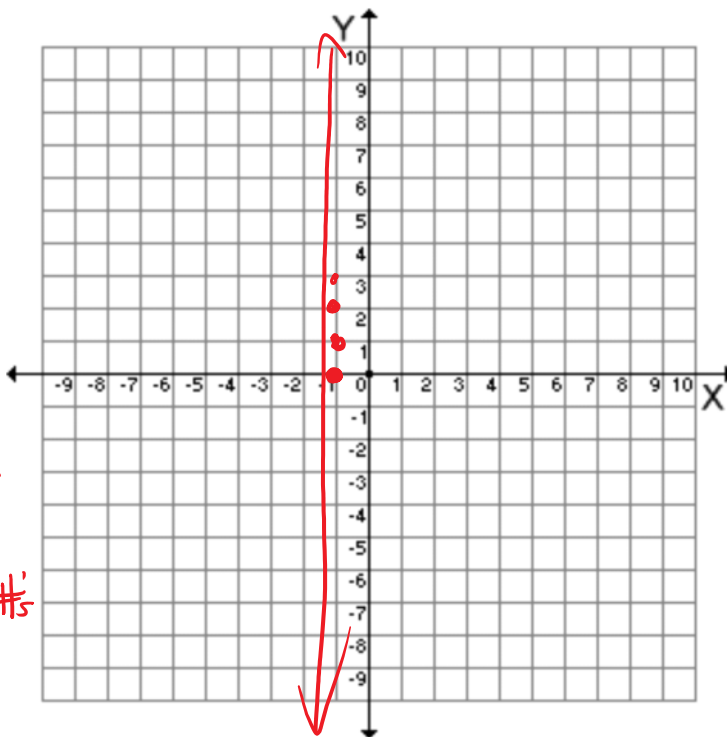
X	Y
-1	0
-1	1
-1	2
-1	3
-1	4

Is the line a function?

Not a function

Domain: $\{-1\}$

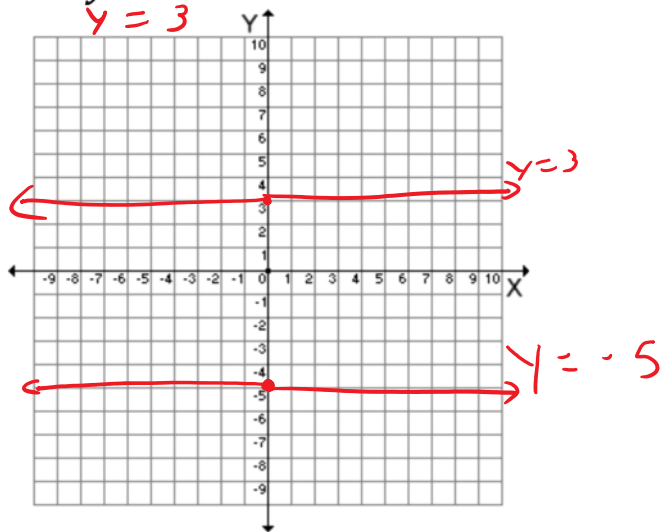
Range: All real #'s



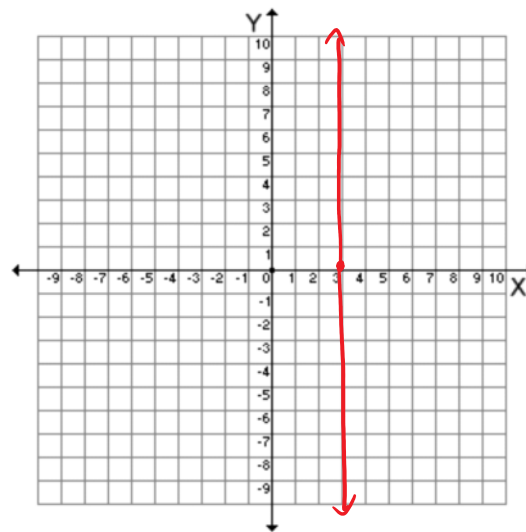
PROBLEM 1C:

Graph each line.

$y = -5$ \longleftrightarrow
 $y = 3$



$x = 3$



PROBLEM 2:

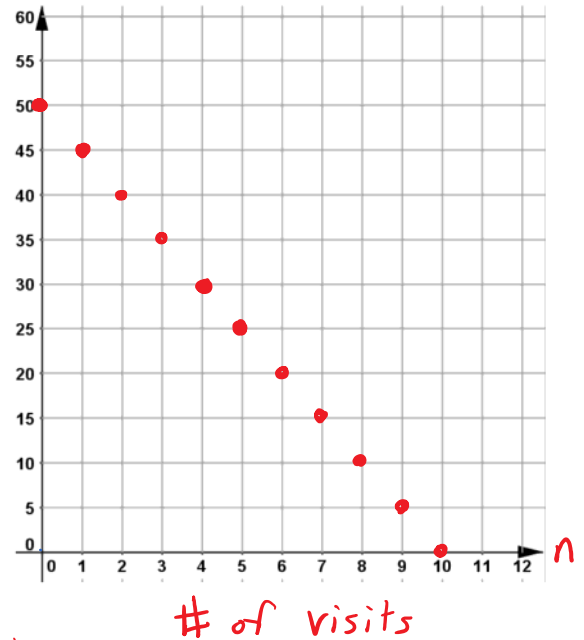
Billy receives a \$50 gift card to use at a Chucky Cheese (where a kid can be a kid). It costs him \$5 per visit to play all the games. A function relating the value of the gift card, $v(n)$, to the number of visits, n , is $v(n) = 50 - 5n$.

Graph the situation and state the domain for Billy Chucky Cheese ~~happy~~.

Domain: $\{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

Don't connect the points b/c you can't have a .5 of a visit.

$$v(n) = \$$$



PROBLEM 2A:

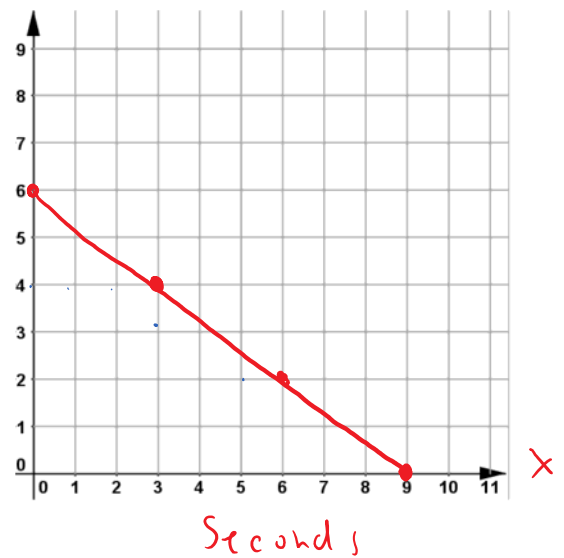
A squirrel fell off the top of a 6 foot tree. The squirrel's descent was 2 feet per 3 seconds. Let $f(x)$ represent the height in feet and let x represent seconds. The function $f(x) = -\frac{2}{3}x + 6$ represent the squirrel's fall.

Graph the function and state the domain for the squirrel's fall (which may or may not be dead....#RIPsquirrel #sorrynotsorry)

$$\text{Domain: } 0 \leq x \leq 9$$

Time = connect points.

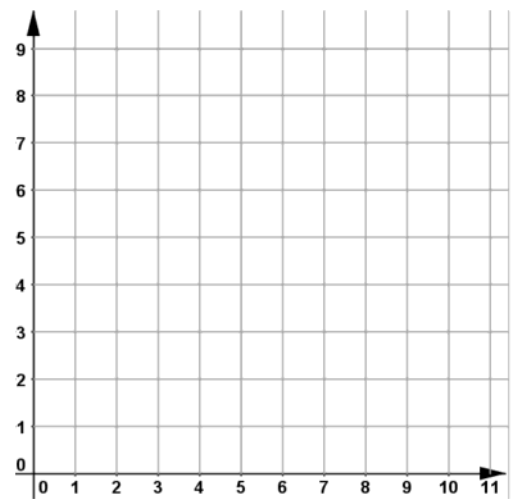
$$f(x) = ft$$



PROBLEM 2B:

Sandy-Sue is going to spend \$12 at the store. Kit-Kat Bars cost \$2 each and Hershey Bars cost \$3 each. The function $2x + 3y = 12$ represents Sandy-Sue's shopping trip. Let x represent number of Kit-Kat Bars and y represent number of Hershey Bars.

Graph the function and state the domain.



PROBLEM 2C:

Grandpa Jim goes for a walk. He travels at a rate of two feet per one minute. The function $f(x) = 2x$ represents Grandpa Jim's walk. Let $f(x)$ represent the distance he walks and x represents the minutes.

Graph the function and state the domain.

Domain: $x \geq 0$

Time = connect points

