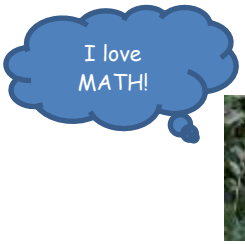
# NOTES 2.1 ☺

*ALGEBRA 2 TRIG G*



Name Key

Date_____ Hour_____

$y = mx + b$

m = slope
b = y-int

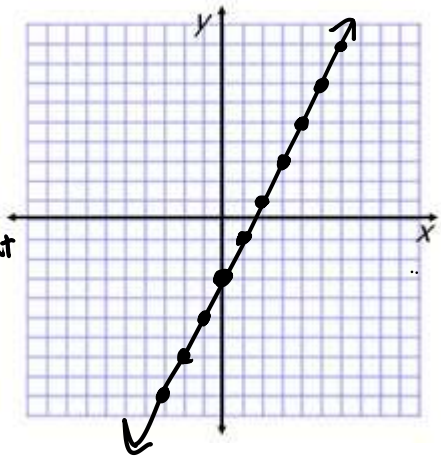
Part I: Sketch a graph of each line. Find the domain and range. Write function or not a function.

x's y's

1) $y = 2x - 3$

b = -3

m = $\frac{2 \text{ up}}{1 \text{ right}}$




D: all real #'s

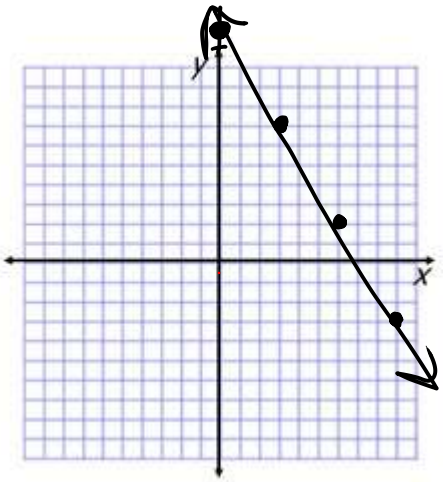
R: all real #'s

yes it's a function

2) $y = -\frac{5}{3}x + 12$

b = 12

m = $\frac{-5 \text{ down}}{3 \text{ right}}$




D: all real #'s

R: all real #'s

yes it's a function

Part II: Find the domain and range. Write function or not a function.

for every x value, there is only one y value

x's y's

3)

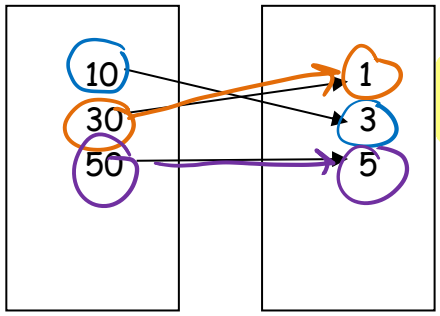
| x | y |
|---|---|
| -1 | 0.4 |
| 0 | 3.2 |
| 5 | 1 |
| 6 | 2.3 |

D: -1, 0, 5, 6

R: .4, 3.2, 1, 2.3

is a function

4)




(no repeating x-values!)

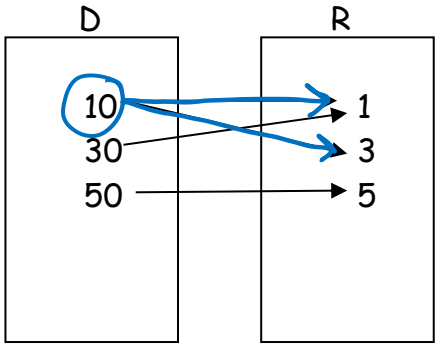
(10, 3)
(30, 1)
(50, 5)

D: 10, 30, 50

R: 1, 3, 5

is a function

5)




D: 10, 30, 50

R: 1, 3, 5

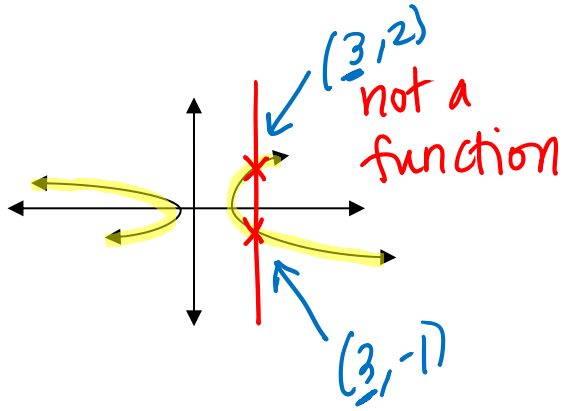
(10, 1)
(10, 3)
(30, 1)
(50, 5)

← not a function

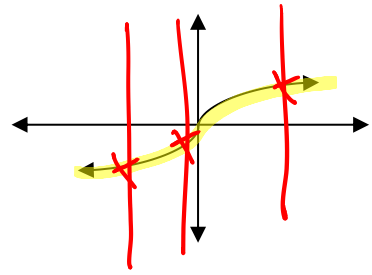
$\boxed{\text{Vertical line test}}$ → if you pass through more than one point, it's NOT a function

Part III: Write "function" or "not a function". ~~Write "discrete" or "continuous".~~

6)




7)



function

Part IV: Find each value if $f(x) = 2x - 4$ and $g(x) = x^2 - 2$. "substituting in values"

8) $f(3)$ ← substitute in 3 for x

"f of 3"

$= 2(3) - 4$

$= 6 - 4$

$= \boxed{2}$

9) $g(-1)$ ← substitute in -1 for x

$= (-1)^2 - 2$

$= 1 - 2$

$= \boxed{-1}$

10) $f(2a)$ ← substitute 2a in for x

$= 2(2a) - 4$

$= \boxed{4a - 4}$