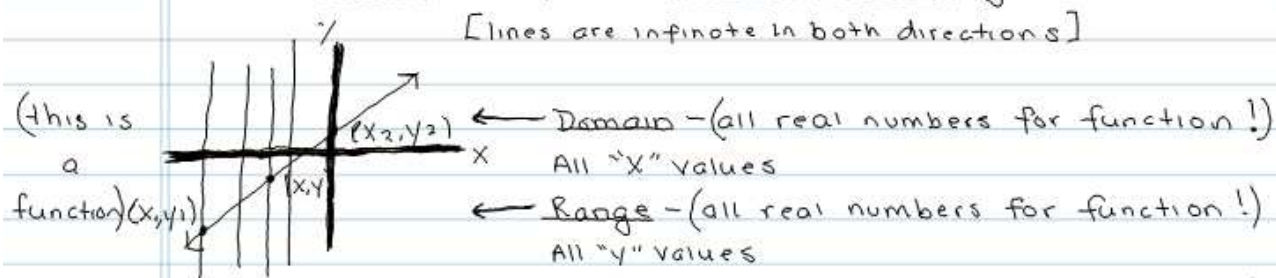


Functions

SWBAT: Determine the Difference between a function and a relation.

- Use graphical methods to Determine
- Evaluate a function or relation for a given value



[lines are infinite in both directions]

$$y = mx + b$$

$$f(x) = mx + b$$

$$f(x) = x + 2$$

$$f(x) = (1)x + 2$$

[$mx + b$]

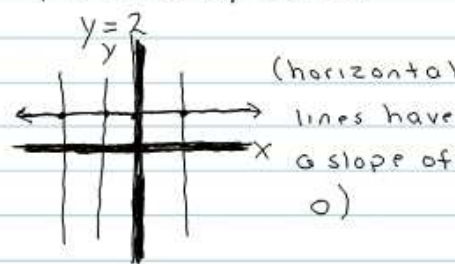
* Is $y = 2$ a function? *

yes it is a function

$$y = 0x + 2 \text{ [} y = mx + b \text{]}$$

* actual form of an absolute value equation is =
 $y = a|x - h| + k$
 $y = |x|$

[only 1 y value for 1 x value]



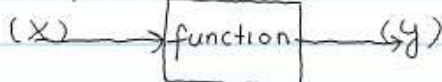
standard form: $ax + by = c$

$$\rightarrow 2y = 7$$

slope intercept: $y = mx + b$

$$y = 7/2$$

*** what is a function? ***



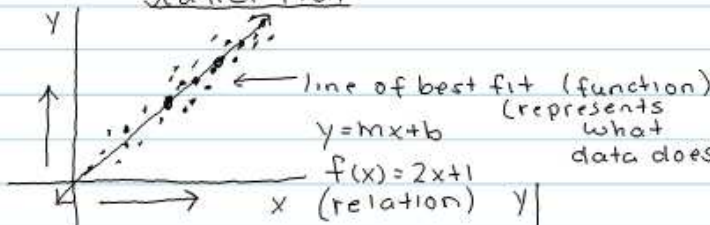
• ordered pair \rightarrow (in order, a pair) x, y

(2, 3) (3, 7) (9, 6)

↓ ↓
x y

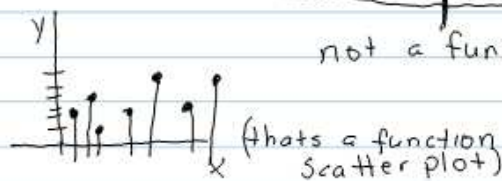
(gumball theory) 1x and 1y (no more no less)

Scatter Plot



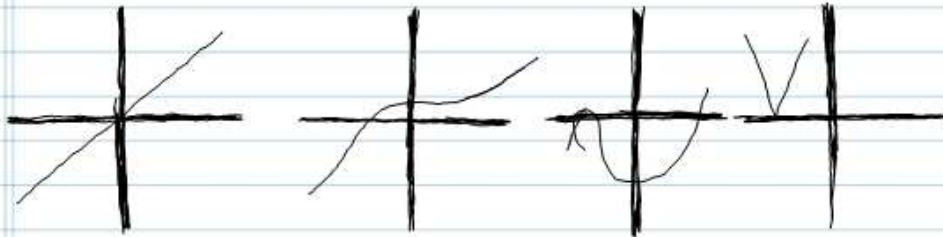
(2, 3) (2, 7) (3, 5)

not a function



Functions (cont.)

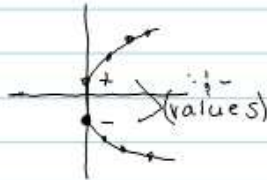
Mr. Lalime
Sept. 12th 2011
Ashley Ke...
BB Alg I



- all are functions and relations
- relation = a set of data (if it has trend its a function)

$\sqrt{y^2} = \sqrt{x+1}$ (not a function)

$y = \sqrt{x+1}$
 $y = \pm\sqrt{x+1}$
 $\pm\sqrt{64}$

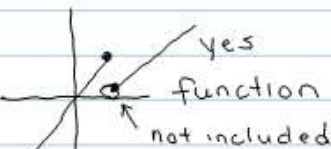
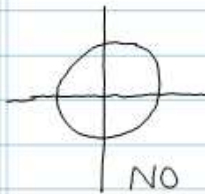


[Relation NOT function]

$\langle (2,5) (7,9) (6,3) (2,4) \rangle$
D R D R D R D R
Domain: 2, 7, 6, [2]

Range: 5, 9, 3, 4 [function]
 $\langle (3,3) (2,3) (7,4) (6,4) \rangle$

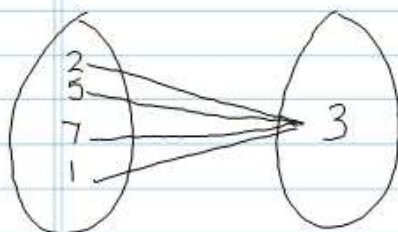
Domain: 3, 2, 7, 6
Range: 3, 4



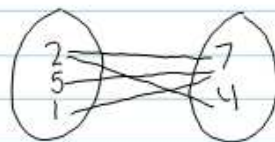
[this means its not on included Point]



ex. \$25 (rent a car)
\$1 mile for 60
\$60 mile rest



yes its a function
(horizontal line)



Not a function

