

10-10-13

$$\frac{\text{SAT 1-1}}{24, 25, 27}$$

$$\frac{\text{SAT 1-2}}{24, 26, 27}$$

$$\frac{\text{SAT 1-3}}{16, 19, 20}$$

$$\frac{\text{SAT 1-4}}{14, 16, 17}$$

$$\frac{\text{SAT 1-5}}{23, 25}$$

$$\frac{\text{SAT 2-2}}{10, 12}$$

$$\frac{\text{SAT 2-3}}{15, 17, 18}$$

$$\frac{\text{SAT 2-4 and 2-6}}{\text{All except 2-4=18}}$$

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### Functions

old kv

What is  $x+4$  when  $x=2$ ?

Plug 2 into  $x$  and get 6

Now

$$f(x) = x+4$$

Find  $f(2)$ .

$$\text{Let } f(x) = 3x-2 \quad g(x) = x^2-1$$

$$\text{Find } f(5) = 3 \cdot 5 - 2 = 13$$

$$\text{Find } g(-3) = (-3)^2 - 1 = 9 - 1 = 8$$

Domain:  $x$  values

Range:  $y$  values

OR  
 $x \quad y$

$$\{(2,3) (2,7) (3,9)\}$$

$$\text{Domain: } \{2, 3\}$$

$$\text{Range: } \{3, 7, 9\}$$

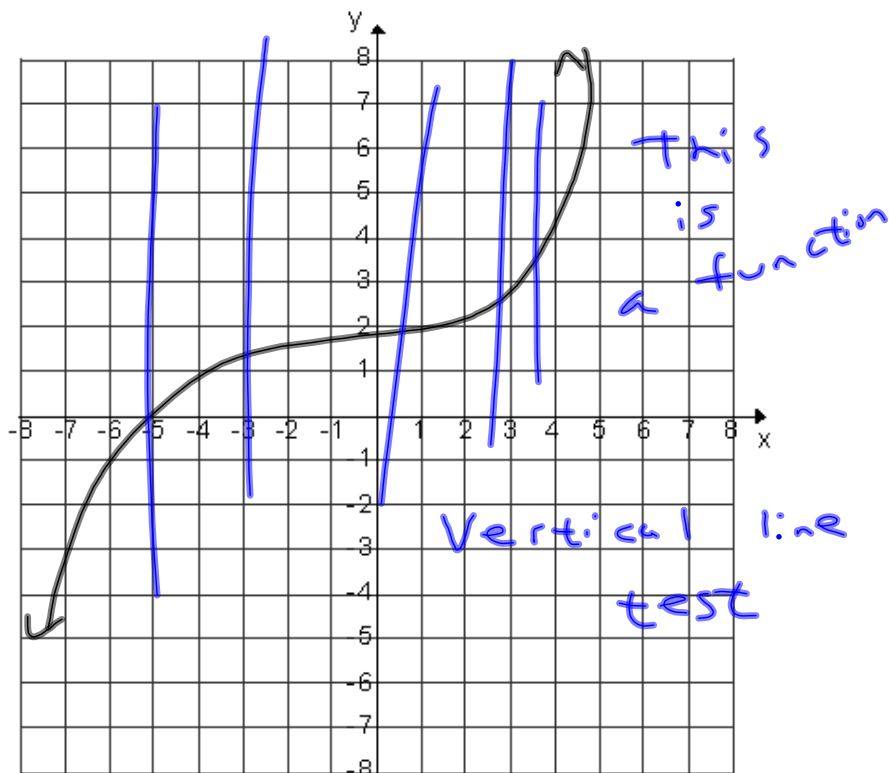
To be a function

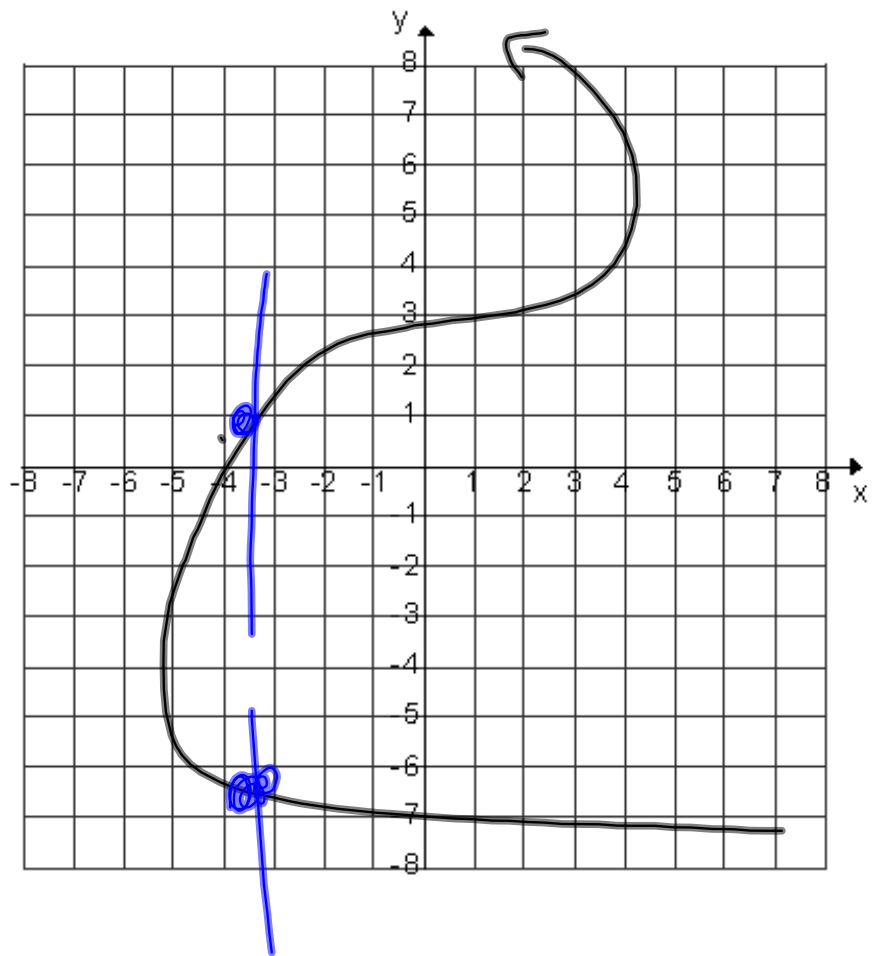
For every  $x$  value,  
there is only **ONE**  $y$  value

Is this a function

$\{(2,7)(3,8)(6,8)\}$  Yes

$\{(2,7)(2,10)\}$  No





10-10-13  
4<sup>th</sup> Trig

Old days - 5<sup>th</sup> grade

What is  $x-2$  when  $x=8$ ?

Now  
 $f(x) = x-2$

Find  $f(8)$ .

$$f(x) = 3x-1 \quad g(x) = x^2-4$$

Find

$$f(7) = 3 \cdot 7 - 1 = 20$$

$$g(-2) = (-2)^2 - 4 = 4 - 4 = 0$$

Domain:  $x$  values

Range:  $y$  values

DR  
x y

$$\{(2,3) (5,7) (4,3)\}$$

$$\text{Domain: } \{2, 4, 5\}$$

$$\text{Range: } \{3, 7\}$$

To Be a function

For every  $x$  value, there is only ONE  $y$  value (answer).

$$\{(2,3) (5,7) (2,10)\}$$

Not a function

$$\{(2,6) (3,6) (4,6)\}$$

