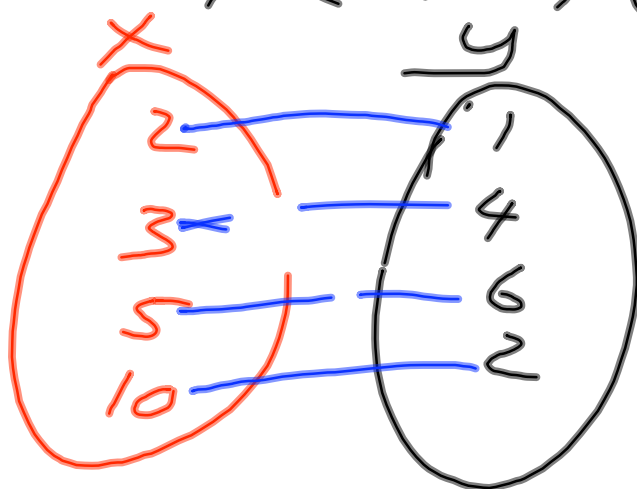


4.5 Writing a Function Rule

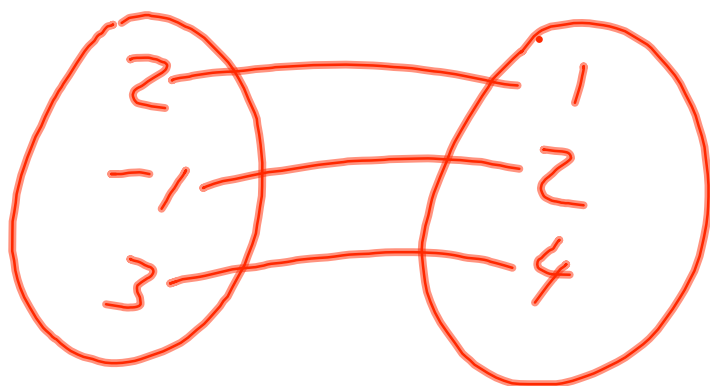
Sunshine State Standards: MA.912.A.2.3
MA.912.A.2.13

Objective: The students will write equations that represent functions

$(\underline{2}, 1)$ $(\underline{3}, 4)$ $(\underline{5}, 6)$ $(\underline{10}, 2)$



$$(\overset{\times}{\underline{2}}, 1) (\overset{\times}{\underline{-1}}, 2) (\overset{\times}{\underline{3}}, 4)$$



$(\overset{x}{2}, 3)$ $(\overset{x}{3}, 4,)$ $(\overset{x}{6}, -1)$
 $(\overset{x}{5}, -1)$

4.5 - WRITING A FUNCTION RULE:

You are given the data table (Step 2) and you have to figure out the equation (Step 1)

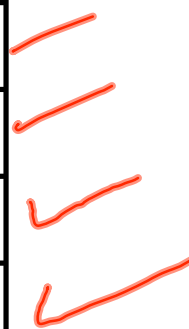
Example #1:

Look for the pattern:

$$y = 2x$$



x	y
2	4
1	2
-1	-2
-2	-4



everything is being multiplied by 2

$f(x) = 2x$ is the function rule (equation)

You are given the data table (Step 2) and you have to figure out the equation (Step 1)

Example #2:

Look for the pattern:

$$y = x^2$$

x	y
2	4
1	1
-1	1
-2	4

x^2
 2^2
 1^2
 $(-1)^2$
 $(-2)^2$

everything is being squared

$f(x) = x^2$ is the function rule (equation)

~~x^2~~ ~~x^3~~
 You are given the data table (Step 2) and you have to figure out the equation (Step 1)

Example #3:

Look for the pattern:

(-1)
 $2 \cdot 2 \cdot 2 = 2^3 =$
 $1^3 = 1 \cdot 1 \cdot 1$
 $(-1)^3$
 $(-2)^3$

x	y
2	8
1	1
-1	-1
-2	-8

everything is being cubed

$f(x) = x^3$ is the function rule (equation)

You are given the data table (Step 2) and you have to figure out the equation (Step 1)

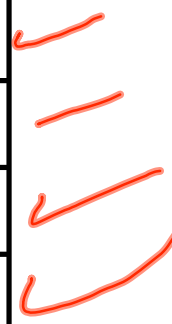
Example #4:

Look for the pattern:

$$y = |x|$$

$$\begin{array}{l} |2| \\ ||| \\ |-1| \\ |-2| \end{array}$$

x	y
2	2
1	1
-1	1
-2	2



everything is absolute value

$f(x) = |x|$ is the function rule (equation)

HOME FUN

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