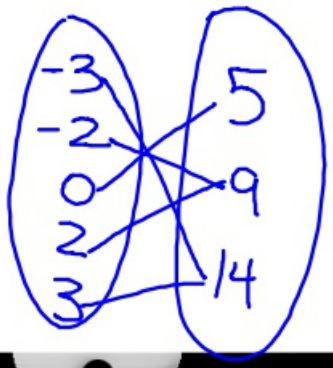
Warm Up 2/11/19

1. Create a table and a mapping using $f(x)= x^2 + 5$ for the domain of {-3, -2, 0, 2, 3}

X	Y
-3	14
-2	9
0	5
2	9
3	14



2. Find the slope from the 2 points:
   a) (-9, 3) & (-2, 3)
   b) (14, 6) & (2, -6)
   c) (-5, -8) & (-5, -4)

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\Delta y}{\Delta x}$

a) $m = \frac{3-3}{-2+9} = \frac{0}{7} = 0$ $m=0$

b) $m = \frac{-6-6}{2-14} = \frac{-12}{-12} = 1$ $m=1$

c) $m = \frac{-4+8}{-5+5} = \frac{4}{0} = \emptyset$ $m=\emptyset$

3. Translate to an equation and solve:
Find 3 consecutive integers whose sum is -72.

$X = 1^{st}$ -25
$X+1 = 2^{nd}$ -24
$X+2 = 3^{rd}$ -23
$-25, -24, -23$

$X + (X+1) + (X+2) = -72$
$3X + 3 = -72$
$-3 \quad -3$
$\frac{3X}{3} = \frac{-75}{3}$
$X = -25$

#1 Finding slope from a TABLE

(FROM WS 51)

Find the difference between each Y-value and between each X-value

X	Y
-2	3
-1	5
0	7
1	9
2	11
5	17

+1, +1, +1, +1, +3

+2, +2, +2, +2, +6

$m = \frac{2}{1} = 2$

$\frac{6}{3} = 2$

#2 Finding slope from a TABLE

(FROM WS 51)

Find the difference between each Y-value and between each X-value

X	Y
-3	5
-2	2
-1	-1
0	-4
1	-7
6	-22

+1, -3
+1, -3
+1, -3
+1, -3
+5, -15

$m = -3$

$\frac{-15}{5} = -3$

#8 Finding slope from a TABLE

(FROM WS 51)

Find the difference between each Y-value and between each X-value

X	Y
-1	1
1	2
3	3
5	4
7	5
13	8
15	9

+2, +1 | +2, +1 | +2, +1 | +2, +1 | +6, +3 | +2, +1

$m = \frac{1}{2}$

$\frac{3}{6} = \frac{1}{2}$

#9 Finding slope from a TABLE

(FROM WS 51)

Find the difference between each Y-value and between each X-value

X	Y
-5	10
-2	5
1	0
4	-5
7	-10

+3, -5

+3, -5

+3, -5

+3, -5

$m = \frac{-5}{3}$

Slope- Intercept Form

$y = mx + b$

m= slope

b= y-intercept

*where the equation crosses the y-axis

Slope and Y-intercept from an EQUATION

(From Slope Practice #30)

1. $y = -2x - 4$ m= -2 b= -4

5. $4x + y = 3$ m= -4 b= 3

$-4x \quad -4x$

$y = -4x + 3$

6. $x = -y - 4$ m= -1 b= -4

$+4 \quad +4$

$x + 4 = -y$

$-1 \quad -1 \quad -1$

$-x - 4 = y$

$y = -x - 4$

$x = -y - 4$

$+y \quad +y$

$x + y = -4$

$-x \quad -x$

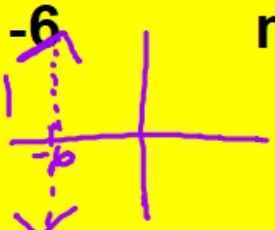
$y = -x - 4$

Slope and Y-intercept from an EQUATION

(From Slope Practice #30)

7. $x = -6$ m= $\varnothing$ b= $\varnothing$

vertical line



9. $10x + 5y = 25$ m= -2 b= 5

$-10x \quad -10x$

$\frac{5y}{5} = \frac{-10x}{5} + \frac{25}{5}$

$y = -2x + 5$

11. $x - 2y = 3$ m= $\frac{1}{2}$ b= $-3\frac{1}{2}$

$-x \quad -x$

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

$y = \frac{1}{2}x - \frac{3}{2}$

② $y = 1x$ m= 1 b= 0

③ $y = -3$ m= 0 b= -3