Warm Up

10-26-2018

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

$f(-3)=(-3)^2+5=14$

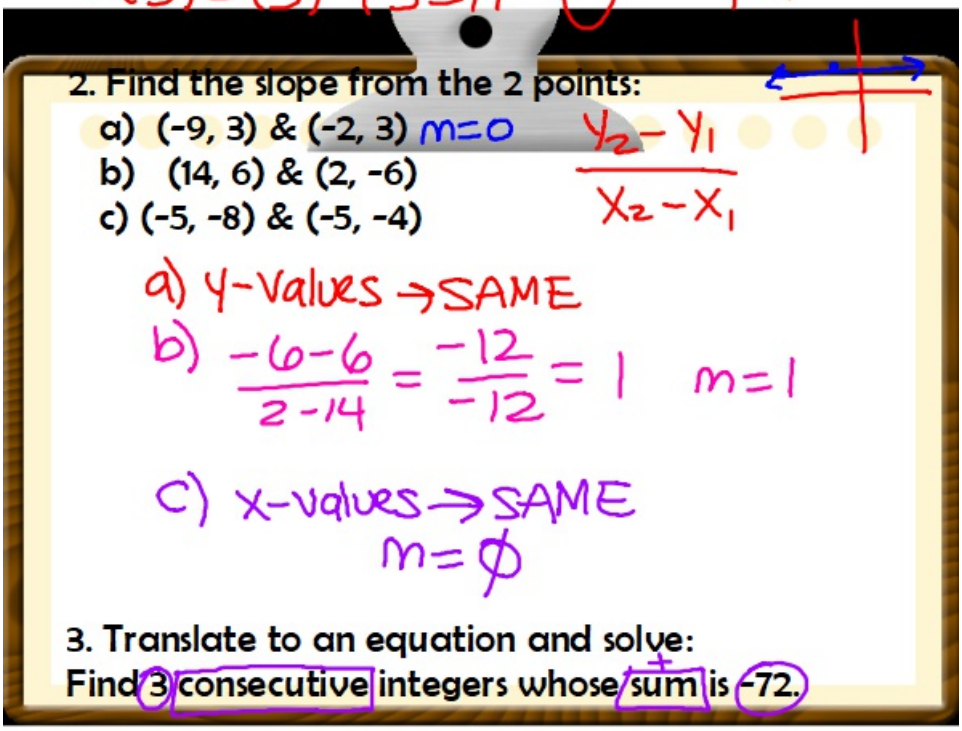
$f(-2)=(-2)^2+5=9$

$f(0)=(0)^2+5=5$

$f(2)=(2)^2+5=9$

$f(3)=(3)^2+5=14$

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) m=0
   b) (14, 6) & (2, -6)
   c) (-5, -8) & (-5, -4)

$\frac{y_2-y_1}{x_2-x_1}$

a) y-values → SAME

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

c) x-values → SAME
$m=\emptyset$

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

$3X+3=-72$
$-3 \quad -3$

$\frac{3X}{3}=\frac{-75}{3}$

$X=-25$

#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
4	15
9	25

+1, +1, +1, +1, +2, +5

+2, +2, +2, +2, +4, +10

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

$\frac{10}{5} = 2$

$\frac{4}{2} = 2$

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

#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

+1 < -2 > -3

+1 < -1 > -3

+1 < 0 > -3

+1 < 1 > -3

$m = \frac{-3}{1} = -3$

#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

+2, +2, +2, +2

+1, +1, +1, +1

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

#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
16	-25

+3, +3, +3, +3, +9

-5, -5, -5, -5, -15

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

$\frac{-15}{9} = \frac{-5}{3}$

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

$+y \quad +y$

$x + y = -4$

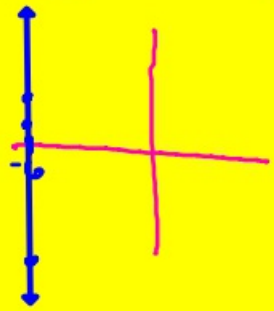
$-x \quad -x$

$y = -x - 4$

Slope and Y-intercept from an EQUATION

(From Slope Practice #30)

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



$(-6, 1)$
$(-6, 2)$
$(-6, -8)$

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

$-x \quad -x$

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

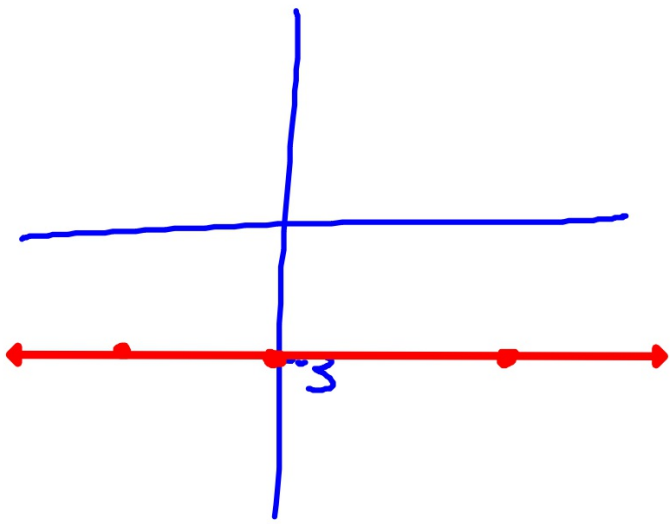
$y = \frac{1}{2}x - \frac{3}{2}$

$y = -3$ $m = 0$ $b = -3$

$(-4, -3)$

$(5, -3)$

$(0, -3)$



(15)

$$x + 7y = 9$$
$$-x \qquad -x$$
$$7y = -x + 9$$
$$\frac{7y}{7} = \frac{-x}{7} + \frac{9}{7}$$
$$y = -\frac{1}{7}x + \frac{9}{7}$$