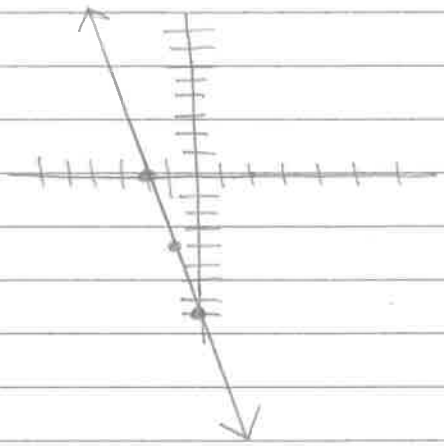
Algebra I
11-14-13

Review Target 3-3

Find the x- and y-intercepts using a table.

$4x + y = -8$

x	$4x + y = -8$	y
-2	$4(-2) + y = -8$ $-8 + y = -8$ $+8 \quad +8$ $y = 0$	0
0	$y = -8$	-8
1	$4(1) + y = -8$ $4 + y = -8$ $-4 \quad -4$ $y = -12$	-12
-1	$4(-1) + y = -8$ $-4 + y = -8$ $+4 \quad +4$ $y = -4$	-4



x-int. (-2, 0)

y-int. (0, -8)

Algebra 1
11-14-13

Target 3-4

Using $y = mx + b$ to write an equation

slope intercept form

$y = mx + b$

slope: m

y-intercept: $(0, b)$

y: coordinate

Write an equation in slope intercept form:

(2) Slope = 3
y-intercept = 4
(0, 4)
$m = 3$ $b = 4$

$y = mx + b$
$y = 3x + 4$

(3) slope = −2
y-int = −10 (0, −10)
$m = -2$ $b = -10$

$y = mx + b$
$y = -2x - 10$

(4) slope = $\frac{3}{4}$
y-int = $\frac{1}{5}$ $(0, \frac{1}{5})$
$m = \frac{3}{4}$ $b = \frac{1}{5}$

$y = mx + b$
$y = \frac{3}{4}x + \frac{1}{5}$

(5) slope = 0
y-int = 5 (0, 5)
$m = 0$ $b = 5$

$y = mx + b$
$y = 0x + 5$
$y = 5$

Write the following equation in slope intercept form. Then tell the slope and y-intercept.

(6) $3x - 2y = -16$
$-3x \quad -3x$
$\frac{-2y}{-2} = \frac{-3x}{-2} - \frac{16}{-2}$
$y = \frac{3}{2}x + 8$

$y = mx + b$
slope = $\frac{3}{2}$
y-int = 8 → (0, 8)

⑦ $9x - 7y = -7$

$-9x \quad\quad -9x$

$\frac{-7y}{-7} = \frac{-7}{-7} - \frac{9x}{-7}$

it's ok if they are out of order → $y = 1 + \frac{9}{7}x$

$y = mx + b$

slope $= \frac{9}{7}$

y-int $= (0, 1)$

⑧ $11x - 4y = 32$

$-11x \quad\quad -11x$

$\frac{-4y}{-4} = \frac{-11x}{-4} + \frac{32}{-4}$

$y = \frac{11}{4}x - 8$

$y = mx + b$

slope $= \frac{11}{4}$

y-int $= (0, -8)$

⑨ $6x + 5y = -15$

$-6x \quad\quad -6x$

$\frac{5y}{5} = \frac{-6x}{5} - \frac{15}{5}$

$y = -\frac{6}{5}x - 3$

$y = mx + b$

slope $= -\frac{6}{5}$

y-int $= (0, -3)$

⑩ $4x - y = 1$

$-4x \quad\quad -4x$

$\frac{-y}{-1} = \frac{-4x}{-1} + \frac{1}{-1}$

$y = 4x - 1$

$y = mx + b$

slope $= 4$

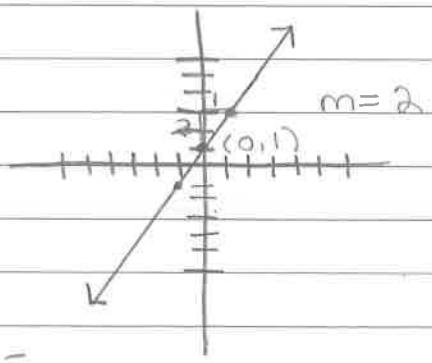
y-int $= (0, -1)$

⑪ $y = 2x + 1$

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

y-int $= (0, 1)$

$b = 1$



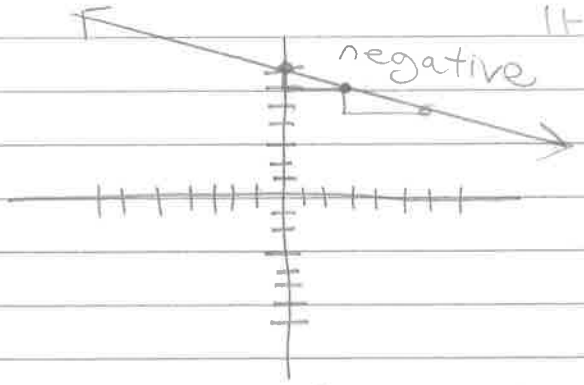
If given a graph:

1. Find the slope $m =$
2. Find the y-int $(0, b)$
3. Substitute into $y = mx + b$

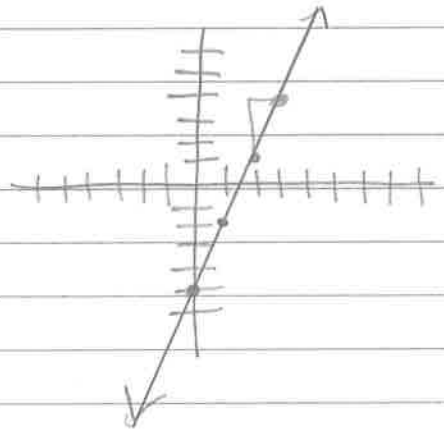
Target 3-4 continued

Algebra 1
1-14-13

(12) Slope = $-\frac{1}{3}$
y-int = (0, 7)
Equation:
$y = -\frac{1}{3}x + 7$



(13) Slope = $\frac{3}{1}$
y-int = (0, -5)
Equation:
$y = 3x - 5$



HW: Writing in Slope Intercept Form in packet - front + back