

## Homework 10.3

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Find the slope, x-intercept, and y-intercept of the following.

1)  $4x - 5y = 5$

$$\begin{array}{|c|c|} \hline x & y \\ \hline 0 & -1 \\ \frac{5}{4} & 0 \\ \hline \end{array}$$

$$4(0) - 5y = 5$$

$$\frac{-5y}{-5} = \frac{-4x+5}{-5}$$

$$y = \frac{4}{5}x - 1$$

$$y = -1$$

4)  $x - y = 2$

$$\begin{array}{|c|c|} \hline x & y \\ \hline 0 & -2 \\ 2 & 0 \\ \hline \end{array}$$

$$x - 0 = 2$$

$$x = 2$$

$$x - y = 2$$

$$-x \quad -x$$

$$-y = -x + 2$$

$$y = x - 2$$

2)  $x - y = 2$

$$\begin{array}{|c|c|} \hline x & y \\ \hline 0 & -1 \\ -1 & -1 \\ \hline \end{array}$$

$$x - 0 = 2$$

$$x = 2$$

$$x - y = 2$$

$$-x \quad -x$$

$$-y = -x + 2$$

$$y = x - 2$$

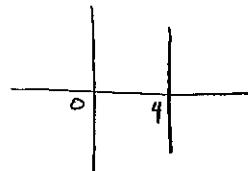
Name the x- and y-intercepts.

3)  $x = 4$  Vertical Lines

no slope

x-intercept  $(4, 0)$ 

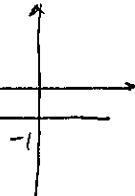
no y-intercept



4)  $y = -1$  Horizontal Lines

slope = 0

no x-intercept

y-intercept  $\rightarrow (0, -1)$ 

Determine the y-intercept of each graph.

5)  $-x - y - 1 = 0$

$x = 0$

$y = -1$

or

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

$-y - 1 = 0$

$+1 \quad +1$

$\frac{-y}{-1} = \frac{1}{-1}$

$b = -1$

6)  $5 - y = 2x$

$x = 0$

$b = 5$

$5 - y = 2(0)$

$5 - y = 0$

$+y \quad +y$

$5 = y$

Solve each equation for the indicated variable.

7)  $4x + abc = 11z$ , solve for x

$$\begin{array}{r} 4x + abc = 11z \\ -abc \quad -abc \\ \hline 4x = 11z - abc \\ \hline x = \frac{11z - abc}{4} \end{array}$$

8)  $A = xyz$ , solve for z

$$\begin{array}{r} A = xyz \\ xy \quad xy \\ \hline \frac{A}{xy} = z \end{array}$$

Answers to Homework 10.3

1)  $m = \frac{4}{5}$ ,  $b = -1$ ,  $x - \text{int} = \frac{5}{4}$     2)  $m = 1$ ,  $b = -2$ ,  $x - \text{int} = 2$     3)  $x - \text{int} = 4$ , no  $y - \text{int}$

4) no  $x - \text{int}$ ,  $y - \text{int} = -1$     5)  $b = -1$     6)  $b = 5$     7)  $x = \frac{11z - abc}{4}$     8)  $\frac{A}{xy} = z$