

Practice 4.4 (Solving for Y)

ANSWERS

Solve each equation for y.

1)
$$\begin{array}{r} -3 = y + x \\ \cancel{-x} \quad \cancel{-x} \\ \hline -x - 3 = y \end{array}$$

3)
$$\begin{array}{r} -8x = -y + 3 \\ \cancel{-3} \quad \cancel{-3} \\ \hline -8x - 3 = \cancel{-y} \quad \cancel{-1} \\ \hline 8x + 3 = y \end{array}$$

5)
$$\begin{array}{r} 5x + 12 = -4y \\ \cancel{-4} \quad \cancel{-4} \quad \cancel{-4} \\ \hline -\frac{5}{4}x - 3 = y \end{array}$$

7)
$$\begin{array}{r} 5 + 3x = 5y \\ \cancel{5} \quad \cancel{5} \quad \cancel{5} \\ \hline 1 + \frac{3}{5}x = y \end{array}$$

9)
$$\begin{array}{r} 0 = -2 - y \\ \cancel{+y} \quad \cancel{+y} \\ \hline y = -2 \end{array}$$

11)
$$\begin{array}{r} -y - 2x = -2 \\ \cancel{+2x} \quad \cancel{+2x} \\ \hline -y = \frac{2x}{-1} - \frac{2}{-1} \\ \hline y = -2x + 2 \end{array}$$

13)
$$\begin{array}{r} 10 = -2y - x \\ \cancel{+x} \quad \cancel{+x} \\ \hline \frac{x+10}{-2} = \frac{-2y}{-2} \\ \hline -\frac{1}{2}x - 5 = y \end{array}$$

15)
$$\begin{array}{r} 2x + 2y = -2 \\ \cancel{-2x} \quad \cancel{-2x} \\ \hline 2y = \frac{-2x}{2} - \frac{2}{2} \\ \hline y = -x - 1 \end{array}$$

2)
$$\begin{array}{r} 2x + y = -1 \\ \cancel{-2x} \quad \cancel{-2x} \\ \hline y = -2x - 1 \end{array}$$

4)
$$\begin{array}{r} 2x + 3y = 0 \\ \cancel{-2x} \quad \cancel{-2x} \\ \hline \frac{3y}{3} = \frac{-2x}{3} \\ \hline y = -\frac{2}{3}x \end{array}$$

6)
$$\begin{array}{r} 3x - 2y = -6 \\ \cancel{-3x} \quad \cancel{-3x} \\ \hline -2y = \frac{-3x}{-2} - \frac{6}{-2} \\ \hline y = \frac{3}{2}x + 3 \end{array}$$

8)
$$\begin{array}{r} -y = -2x - 5 \\ \cancel{-1} \quad \cancel{-1} \quad \cancel{-1} \\ \hline y = 2x + 5 \end{array}$$

10)
$$\begin{array}{r} 20 = x - 5y \\ \cancel{-x} \quad \cancel{-x} \\ \hline \frac{-x+20}{-5} = \frac{-5y}{-5} \\ \hline \frac{1}{5}x - 4 = y \end{array}$$

12)
$$\begin{array}{r} -7x + 12 = -3y \\ \cancel{-3} \quad \cancel{-3} \quad \cancel{-3} \\ \hline \frac{7}{3}x - 4 = y \end{array}$$

$$\begin{aligned} \frac{-x}{-5} &= \frac{x}{5} \\ &= \frac{1x}{5} = \frac{1}{5}x \end{aligned}$$

14)
$$\begin{array}{r} 0 = -6x + 3y - 12 \\ \cancel{-3y} \quad \cancel{-3y} \\ \hline -3y = \frac{-6x}{-3} - \frac{12}{-3} \\ \hline y = 2x + 4 \end{array}$$

4.1 Review Skills		
1. Solve:	2. Simplify:	3. Describe how to move from Point A to Point B:
$-6x - 7x = -2$ $\cancel{-13x} = -2$ $x = \frac{2}{13}$	$-3(-12x - 5) + 10$ $36x + 15 + 10$ $36x + 25$	
4. Solve:	5. Simplify:	
$9 - 3x = -21$	$2(x + 1) - (-12x - 5)$	$+5$ units in the y direction -4 units in the x direction