

Answers to examples in the PowerPoint presentation.

1.

$4x - 7y = 14$	$3x + 4y = -12$
$-4x \quad -4x$	$-3x \quad -3x$
$-7y = -4x + 14$	$4y = -3x - 12$
$\frac{-7y}{-7} = \frac{-4x}{-7} + \frac{14}{-7}$	$\frac{4y}{4} = \frac{-3x}{4} - \frac{12}{4}$
$y = \frac{4}{7}x - 2$	$y = -x - 3$
$\parallel m = \frac{4}{7}$	$b = -3$
	$y = \frac{4}{7}x - 3$

2.

$10x - 5y = 20$	$y - 1 = -\frac{2}{3}(x + 12)$
$-10x \quad -10x$	$y - 1 = -\frac{2}{3}x - 8$
$-5y = -10x + 20$	$\quad +1 \quad +1$
$\frac{-5y}{-5} = \frac{-10x}{-5} + \frac{20}{-5}$	$y = -\frac{2}{3}x - 7$
$y = 2x - 4$	$b = -7$
$\perp m = -\frac{1}{2}$	$y = -\frac{1}{2}x - 7$

3.

$-x + 6y = 8$	$y + 7 = -\frac{4}{3}(x - 9)$
$+x \quad +x$	$y + 7 = -\frac{4}{3}x + 12$
$6y = x + 8$	$\quad -7 \quad -7$
$\frac{6y}{6} = \frac{x}{6} + \frac{8}{6}$	$y = -\frac{4}{3}x + 5$
$y = \frac{1}{6}x + \frac{4}{3}$	$b = 5$
$\parallel m = \frac{1}{6}$	$y = \frac{1}{6}x + 5$

4.

$$\begin{aligned}
 10x - 5y &= 20 \\
 -10x &\quad -10x \\
 -5y &= -10x + 20 \\
 \frac{-5y}{-5} &= \frac{-10x}{-5} + \frac{20}{-5} \\
 \parallel m &= -\frac{2}{3}x \\
 y &= 2x - 4 \\
 b &= -4 \\
 \\
 y &= -\frac{2}{3}x - 4
 \end{aligned}$$

5.

$$\begin{aligned}
 -3x + 5y &= 12 \\
 +3x &\quad +3x \\
 5y &= 3x + 12 \\
 \frac{5y}{5} &= \frac{3x}{5} + \frac{12}{5} \\
 \perp m &= -\frac{2}{7} \\
 y &= \frac{3}{5}x + \frac{12}{5} \\
 b &= \frac{12}{5} \\
 \\
 y &= -\frac{2}{7}x + \frac{12}{5}
 \end{aligned}$$

6.

$$\begin{aligned}
 -5x + 6y &= -15 & y + 0 &= -\frac{9}{7}(x - 14) \\
 +5x &\quad +5x & & \\
 6y &= 5x - 15 & y &= -\frac{9}{7}x + 18 \\
 \frac{6y}{6} &= \frac{5x}{6} - \frac{15}{6} & b &= 18 \\
 y &= \frac{5}{6}x - \frac{15}{6} & & \\
 \parallel m &= \frac{5}{6} & y &= \frac{5}{6}x + 18
 \end{aligned}$$