

1. Point =  $(-12, -27)$

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

Parallel (Same Slope)

$-x = 93 + 3y$

$93 + 3y = -x - 93$

$3y = -x - 186$

$y = -\frac{1}{3}x - 62$

$y - y_1 = m(x - x_1)$

$y + 27 = -\frac{1}{3}(x + 12)$

2. Point:  $(14, 39)$

$m = \frac{3}{14}$

$y - y_1 = m(x - x_1)$

$y - 39 = \frac{3}{14}(x - 14)$

$14y - 546 = 3(x - 14)$

$14y - 546 = 3x - 42$

$0 = 3x - 14y + 504$

$3x - 14y + 504 = 0$

3.

$x$ -int = 6  $y$ -int = -10  
 $(6, 0)$   $(0, -10)$

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

$m = \frac{-10 - 0}{0 - 6}$

$m = \frac{-10}{-6} = \frac{5}{3}$

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

$y = mx + b$

$b = -10$

$m = 5/3$

$y = \frac{5}{3}x - 10$

5. Point:  $(29, -3)$

$m = \frac{1}{4}$

$y - y_1 = m(x - x_1)$

$y + 3 = \frac{1}{4}(x - 29)$

Parallel (same slope)

$x + 4y = 41$

$4y = -x + 41$

$y = -\frac{1}{4}x + \frac{41}{4}$

6.  $x$ -int ( $y=0$ )

$7y - 32 = 8x$

$-32 = 8x$

$-4 = x$

Point:  $(-4, 0)$

Parallel (same slope)

$2(y - 2) = 4x - 8$

$2y - 4 = 4x - 8$

$2y = 4x - 4$

$y = 2x - 2$

$m = 2$

$y - y_1 = m(x - x_1)$

$y - 0 = 2(x + 4)$

$y = 2x + 8$

$0 = 2x - y + 8$

$2x - y + 8 = 0$

7.  $x$ -int ( $y=0$ )

$3x - 8y - 7 = 14$

$3x - 7 = 14$

$3x = 21$

$x = 7$

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

$m = \frac{-8 - 0}{0 - 7}$

$m = \frac{-8}{-7}$

$m = +\frac{8}{7}$

$y$ -int ( $x=0$ )

$b = -8$

$(0, -8)$

$y = mx + b$

$m = 8/7$

$b = -8$

$y = \frac{8}{7}x - 8$