

6. $y = 4x + 3$

$$y = mx + b$$

$$\begin{array}{ccc} & \uparrow & \uparrow \\ m = 4 & & (0, 3) \\ & \uparrow & \\ & y = 4x + 3 & \end{array}$$

7. $y = 2x + 13$

$(-4, 5) \quad m = 2$

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

$$(y - 5) = 2(x - (-4))$$

$$y - 5 = 2(x + 4)$$

$$y - 5 = 2x + 8$$

$$y = 2x + 13$$

8.

$(0, 7)$ and $(9, 3)$

$y = -\frac{4}{9}x + 7$

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

↑
use points find m

$$m = \frac{7 - 3}{0 - 9} = -\frac{4}{9}$$

use one of point, I will
use $(0, 7)$ $m = -\frac{4}{9}$

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

$$y - 7 = -\frac{4}{9}(x - 0)$$

$$y - 7 = -\frac{4}{9}x$$

$$y = -\frac{4}{9}x + 7$$

9. $(-5, 8)$ and $(-1, 2/3)$

$$y = -\frac{11}{6}x - \frac{7}{6}$$

$$m = \frac{8 - 2/3}{-5 - (-1)}$$

$$m = \frac{\left[\frac{24}{3} - \frac{2}{3}\right]}{-5 + 1} = \frac{\left(\frac{22}{3}\right)}{-4}$$

$$m = \frac{22}{3} \div -\frac{4}{1}$$

$$m = \frac{22}{3} \cdot -\frac{1}{4} = -\frac{22}{12}$$

$$m = -11/6$$

use a point
and m ,
 $m = -11/6$
 $(-5, 8)$

$$(y - y_1) = m(x - x_1)$$
$$y - 8 = -\frac{11}{6}(x - (-5))$$

$$y - 8 = -\frac{11}{6}x - \frac{55}{6}$$

$$y = -\frac{11}{6}x - \frac{55}{6} + \frac{8}{1}$$

$$y = -\frac{11}{6}x - \frac{55}{6} + \frac{48}{6}$$

$$y = -\frac{11}{6}x - \frac{7}{6}$$

10. $(21, -40)$ $m = 4/5$

$$y = \frac{4}{5}x - \frac{284}{5}$$
$$(y - y_1) = m(x - x_1)$$
$$y - (-40) = \frac{4}{5}(x - 21)$$

$$y + 40 = \frac{4}{5}x - \frac{84}{5}$$

$$y = \frac{4}{5}x - \frac{84}{5} - 40$$

$$y = \frac{4}{5}x - \frac{84}{5} - \frac{200}{5}$$

$$y = \frac{4}{5}x - \frac{284}{5}$$

11. $(-3/5, 7)$ $m = 1/2$

$$y = \frac{1}{2}x + \frac{73}{10}$$
$$(y - y_1) = m(x - x_1)$$
$$y - 7 = \frac{1}{2}(x - (-3/5))$$

$$y - 7 = \frac{1}{2}(x + 3/5)$$

$$y - 7 = \frac{1}{2}x + \frac{3}{10}$$

$$y = \frac{1}{2}x + \frac{3}{10} + 7$$

$$y = \frac{1}{2}x + \frac{3}{10} + \frac{70}{10}$$

$$y = \frac{1}{2}x + \frac{73}{10}$$

12.

$$y = -\frac{1}{2}x + \frac{5}{2}$$

pick any two points
on the line - select
clear and easy
coordinates
(1, 2) and (5, 0)

$$m = \frac{2-0}{1-5} = \frac{2}{-4} = -\frac{1}{2}$$

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

$$y - 0 = -\frac{1}{2}(x - 5)$$

$$y = -\frac{1}{2}x + \frac{5}{2}$$

13.

$$-4x + 6y = -12$$

x-int $(3, 0)$ →

x	y
0	-2
3	0

 ← y-int. $(0, -2)$



