

### 1.3 Do Now: Graphing lines and finding intersections

1. Graph and label the two equations. Mark their intersection as an ordered pair.

$$y = x - 4$$

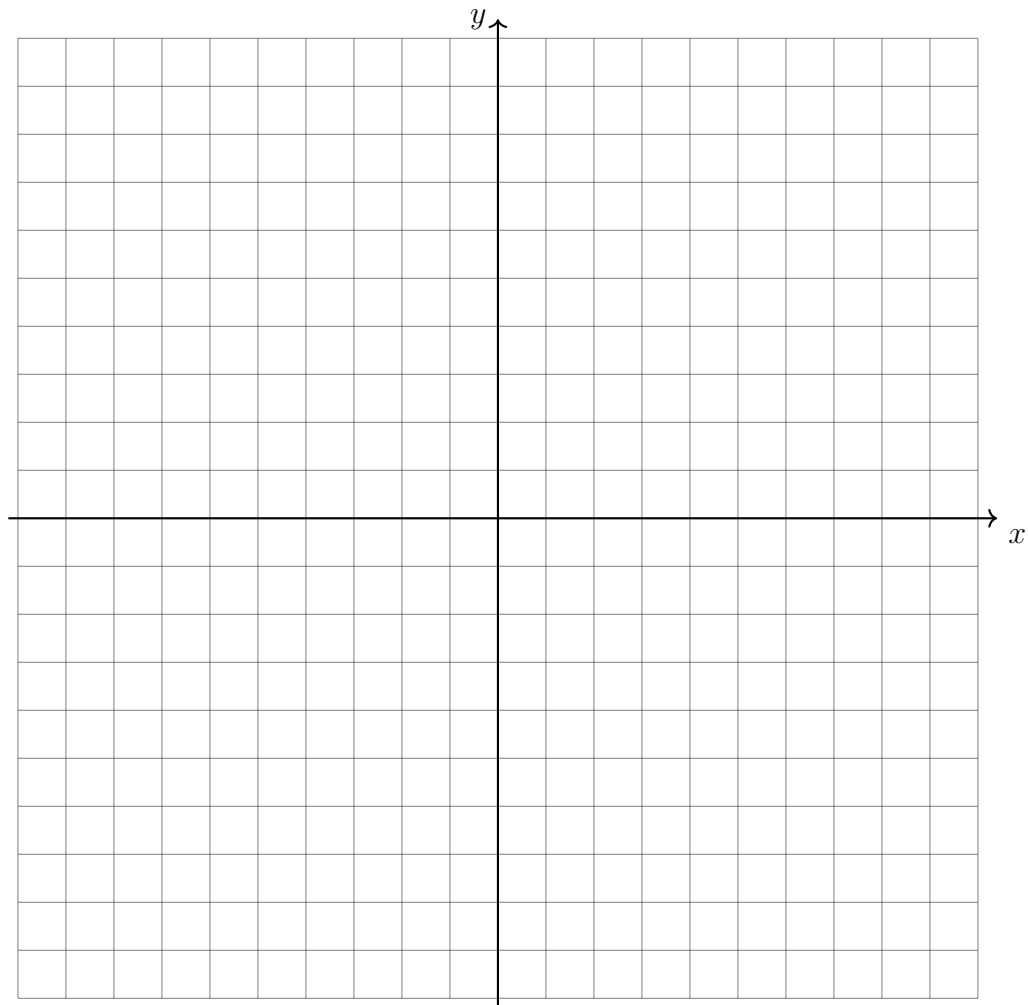
$$x + 3y = 9$$

Write down the slope and  $y$ -intercept  
of the first equation.

(a)  $m =$

(b)  $b =$

$x$	$y$
-3	4
0	3
3	2
6	1
9	0



Convert the second equation to slope-intercept form,  $y = mx + b$ .

2. In the following problems, solve for the value of  $x$ , then check your answer.

(a)  $2x + 3 = x + 9$

(d)  $\frac{1}{2}(x - 7) = 12$

(b)  $\frac{3}{4}x = 9$

(e)  $\frac{1}{3}x - 7 = -4$

(c)  $3x - 3 = x + 7$

(f)  $\frac{2}{3}(x + 7) = x - 4$

3. Given the linear function  $f(x) = \frac{3}{2}x + 4$ .

(a) Find  $f(1)$

(b)  $f(x) = 11\frac{1}{2}$ . Find  $x$ .