

EXTRA PRACTICE 7

Graphing Linear Equations Using Intercepts

Use after Sections 3.2 and 3.3

Name _____

Examples: Graph.

a) $3x - 2y = 6$

To find the y -intercept,
let $x = 0$. Then solve for y :

$$\begin{aligned} 3 \cdot 0 - 2y &= 6 \\ -2y &= 6 \\ y &= -3 \end{aligned}$$

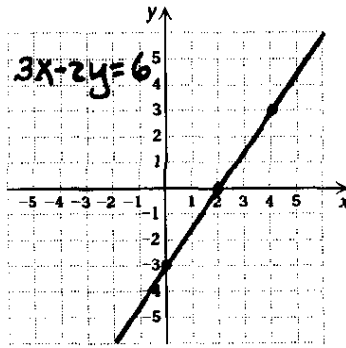
Thus $(0, -3)$ is the y -intercept.

Plot both intercepts and a third
point $(4, 3)$ as a check.

To find the x -intercept,
let $y = 0$. Then solve for x :

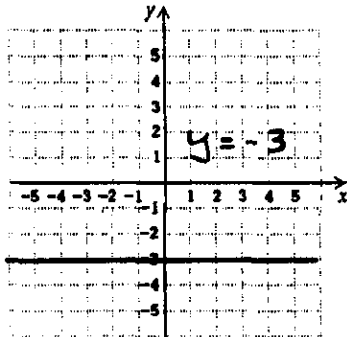
$$\begin{aligned} 3x - 2 \cdot 0 &= 6 \\ 3x &= 6 \\ x &= 2 \end{aligned}$$

Thus $(2, 0)$ is the x -intercept.



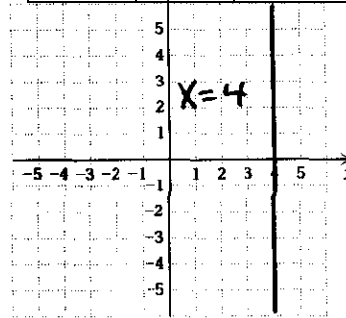
b) $y = -3$

x	y	(x, y)
	$y = -3$	
-2	-3	$(-2, -3)$
0	-3	$(0, -3)$
4	-3	$(4, -3)$



c) $x = 4$

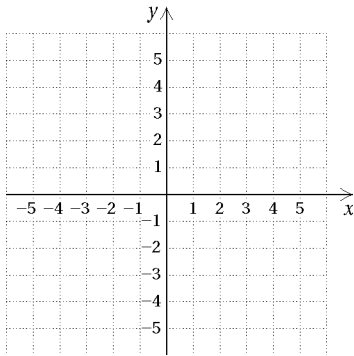
x	y	(x, y)
$x = 4$		
4	-2	$(4, -2)$
4	0	$(4, 0)$
4	3	$(4, 3)$



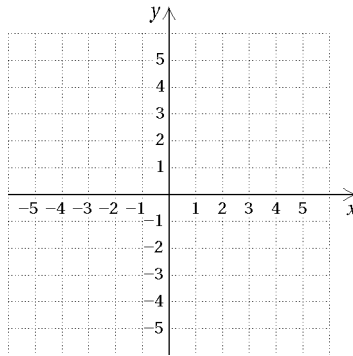
EXTRA PRACTICE 7
Graphing Linear Equations Using Intercepts
Use after Sections 3.2 and 3.3

Graph.

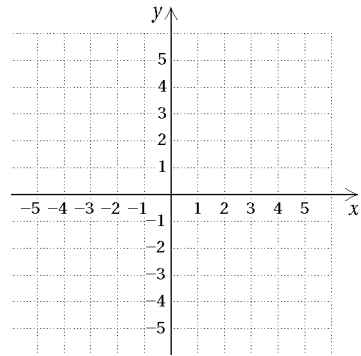
1. $3x + 6y = 12$



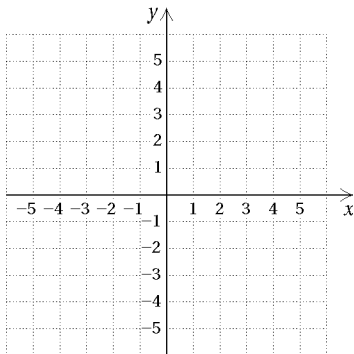
2. $2x - 5y = 10$



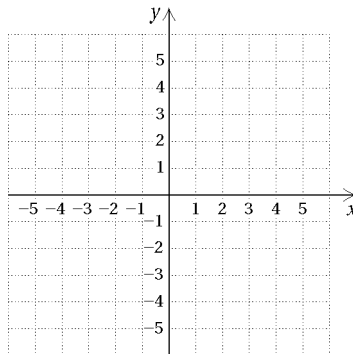
3. $x - 3y = 6$



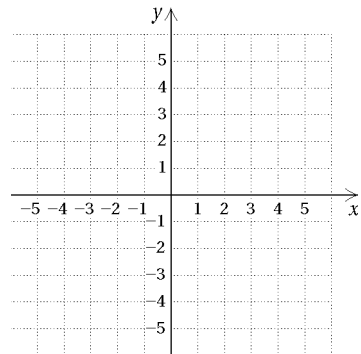
4. $y = 2$



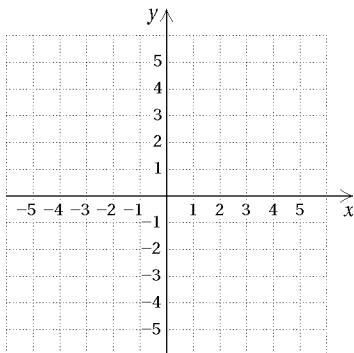
5. $y = 3x + 1$



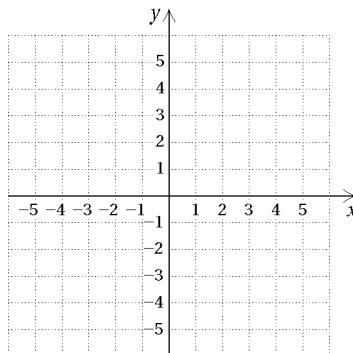
6. $4x + 2y = 8$



7. $x - y = 3$



8. $x = -1$



9. $5x + 3y = 15$

