

4-5 Study Guide and Intervention *(continued)*

Graphing Linear Equations

Graph Linear Equations The graph of a linear equation is a line. The line represents all solutions to the linear equation. Also, every ordered pair on this line satisfies the equation.

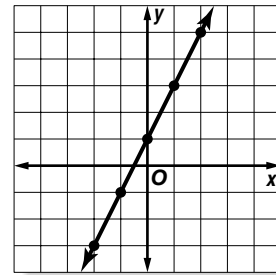
Example Graph the equation $y - 2x = 1$.

Solve the equation for y .

$$\begin{aligned}
 y - 2x &= 1 && \text{Original equation} \\
 y - 2x + 2x &= 1 + 2x && \text{Add } 2x \text{ to each side.} \\
 y &= 2x + 1 && \text{Simplify.}
 \end{aligned}$$

Select five values for the domain and make a table. Then graph the ordered pairs and draw a line through the points.

x	2x + 1	y	(x, y)
-2	2(-2) + 1	-3	(-2, -3)
-1	2(-1) + 1	-1	(-1, -1)
0	2(0) + 1	1	(0, 1)
1	2(1) + 1	3	(1, 3)
2	2(2) + 1	5	(2, 5)



Step # 1

Step # 2

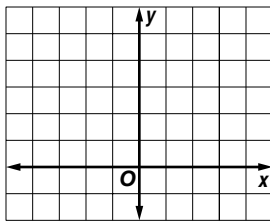
Step # 3

Exercises

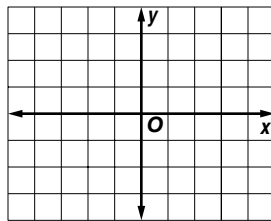
Graph each equation.

For ALL Problems: show your "5 value" tables NEATLY on looseleaf!

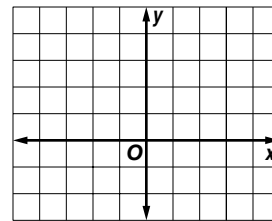
1. $y = 4$



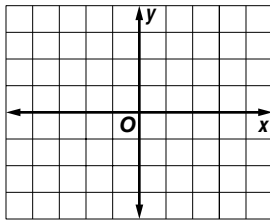
2. $y = 2x$



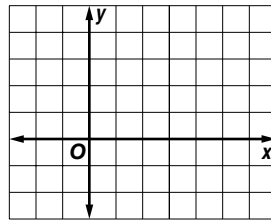
3. $x - y = -1$



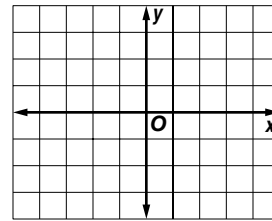
4. $3x + 2y = 6$



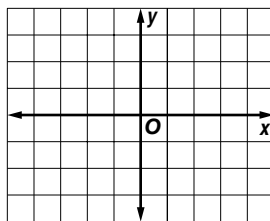
5. $x + 2y = 4$



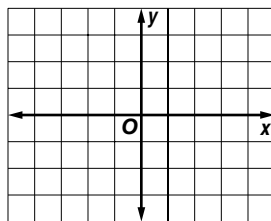
6. $2x + y = -2$



7. $3x - 6y = -3$



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



9. $\frac{1}{4}x + \frac{3}{4}y = 6$

