

4-5 Study Guide and Intervention

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 .

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

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

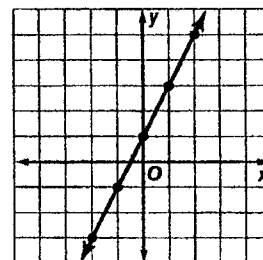
x	2x + 1	y	(x, y)
-2	2(-2) + 1	-3	(-2, -3)
-1	2(-1) + 1	-1	(-1, -1)
0	2(0) + 1	1	(0, 1)
1	2(1) + 1	3	(1, 3)
2	2(2) + 1	5	(2, 5)

"yTg"
method

Do This Part:

- * Solve for Y
- * the T-Table

On Looseleaf!! Thanks, Mr. C.
The domain is {All Reals}

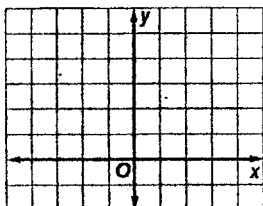


Exercises

GRAPH ON THIS SHEET OR ON GRAPH PAPER.

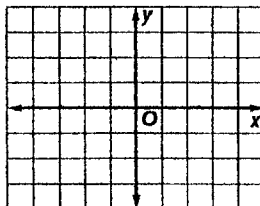
Graph each equation. **TP***

* 1. $y = 4$

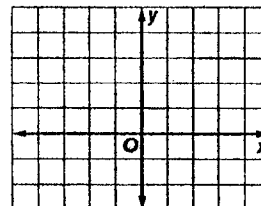


x	y
-2	4
-1	4
0	4
1	4
2	4

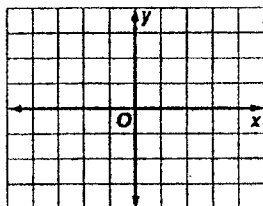
2. $y = 2x$



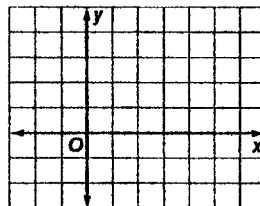
3. $x - y = -1$



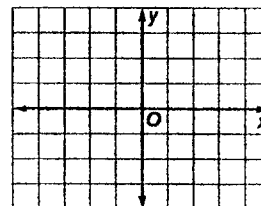
4. $3x + 2y = 6$



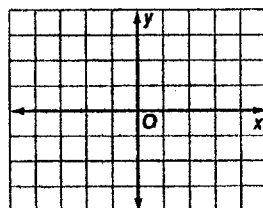
5. $x + 2y = 4$



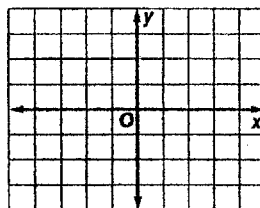
6. $2x + y = -2$



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



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



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

