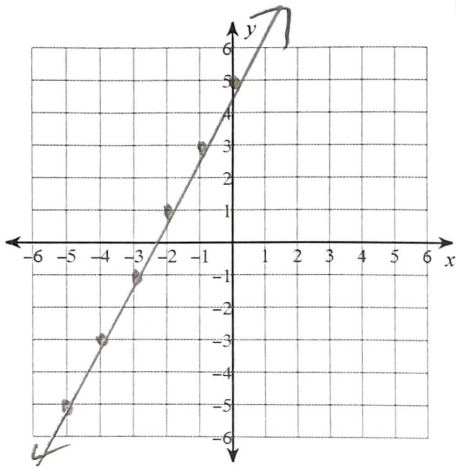


Graphing Equations and Inequalities WS#1

Sketch the graph of each line. Is (3, -3) a solution? Why or why not?

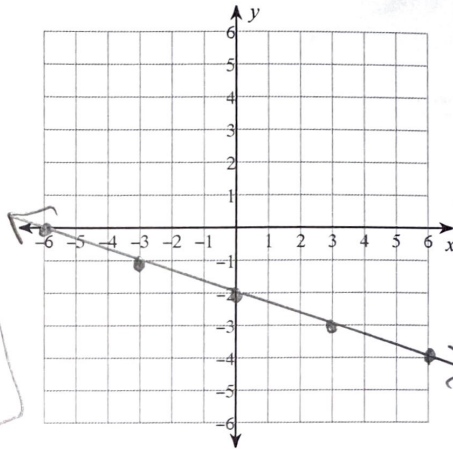
1) $y = 2x + 5$



$(0, 5)$
 $m = \frac{2}{1} = 2$ ← rise
 1 ← run

No.
 $-3 \neq 2(3) + 5$
 $-3 \neq 11$
 or
 It is not on the line.

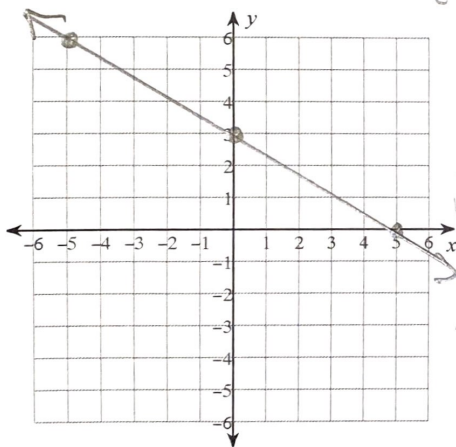
2) $y = -\frac{1}{3}x - 2$



$(0, -2)$
 $m = \frac{1}{3}$ ← rise
 3 ← run

Yes
 $-3 = -\frac{1}{3}(3) - 2$
 $-3 = -3$
 or it is on the line

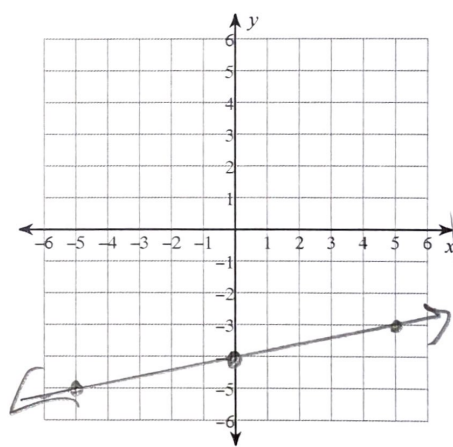
3) $y = -\frac{3}{5}x + 3$



$(0, 3)$
 $m = \frac{3}{5}$ ← rise
 5 ← run

No.
 $-3 \neq -\frac{3}{5}(3) + 3$
 $-3 \neq 1.2$
 or it is not on the line

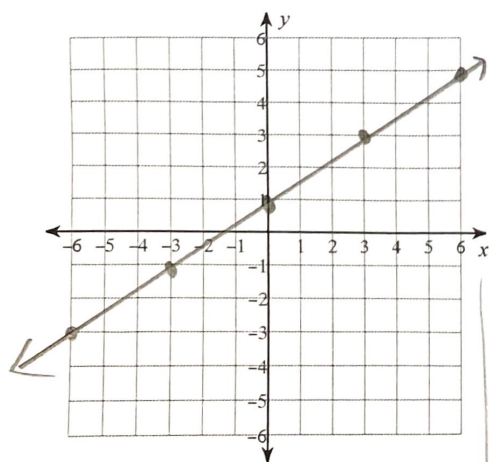
4) $y = \frac{1}{5}x - 4$



$(0, -4)$
 $m = +\frac{1}{5}$ ← rise
 5 ← run

No.
 $-3 \neq \frac{1}{5}(3) - 4$
 $-3 \neq 3.4$
 or it is not on the line.

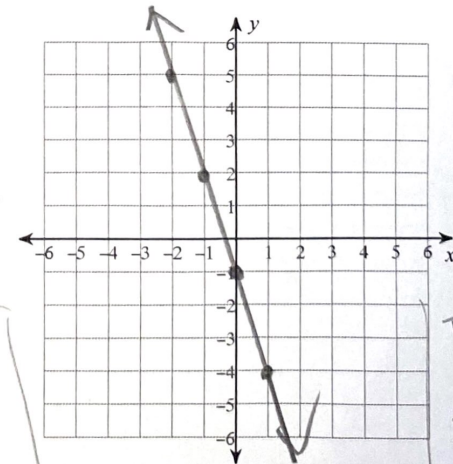
5) $y = \frac{2}{3}x + 1$



$(0, 1)$
 $m = +\frac{2}{3}$ ← rise
 3 ← run

No.
 $-3 \neq \frac{2}{3}(3) + 1$
 $-3 \neq 3$
 or it is not on the line

6) $y = -3x - 1$

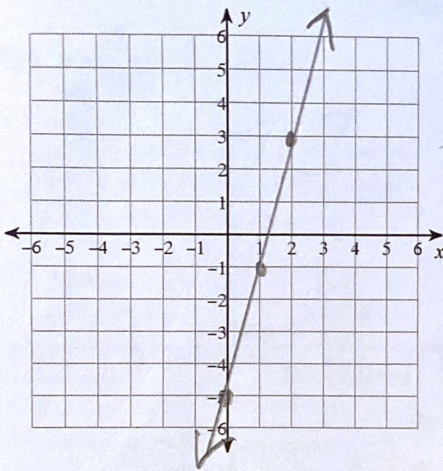


$(0, -1)$
 $m = -3 = \frac{-3}{1}$ ← rise
 1 ← run

No.
 $-3 \neq -3(3) - 1$
 $-3 \neq -10$
 or it is not on the line.

Graphing, cont.

7) $y = 4x - 5$

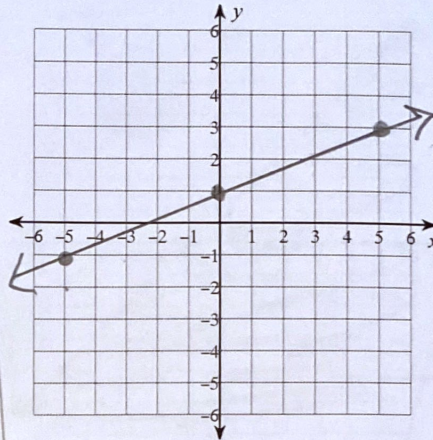


$(0, -5)$
 $m = 4 = \frac{4}{1}$

No.

$-3 \neq 4(3) - 5$
 $-3 \neq 7$
 or it is not on the line.

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

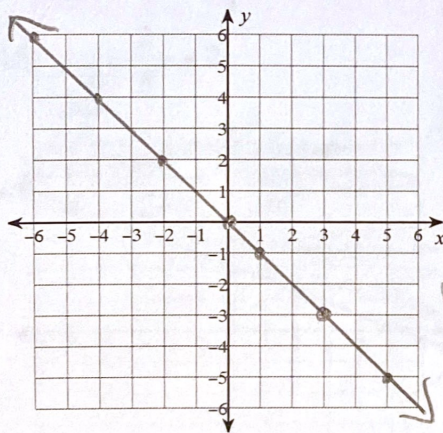


$(0, 1)$
 $m = \frac{2}{5}$

No.

$-3 \neq \frac{2}{5}(3) + 1$
 $-3 \neq 2.2$
 or it is not on the line.

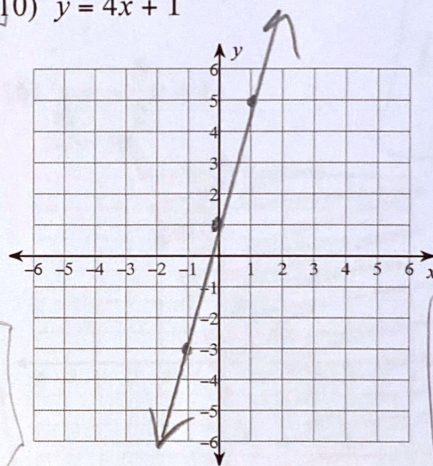
9) $y = -x$



$(0, 0)$
 $m = -1$
 $= -\frac{1}{1}$

Yes. $-3 = -(3)$
 $-3 = -3$
 or it is on the line.

10) $y = 4x + 1$

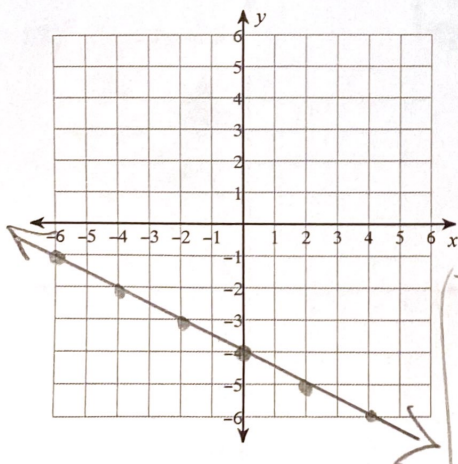


$(0, 1)$
 $m = 4 = \frac{4}{1}$

No.

$-3 \neq 4(3) + 1$
 $-3 \neq 13$
 or it is not on the line.

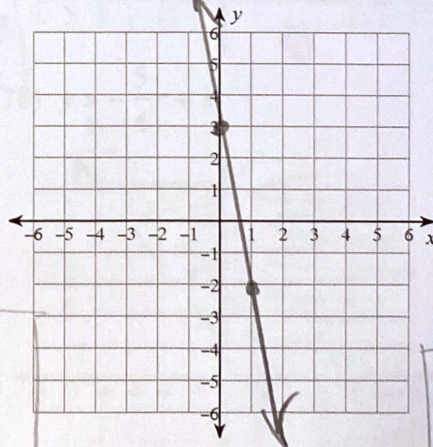
11) $y = -\frac{1}{2}x - 4$



$(0, -4)$
 $m = -\frac{1}{2}$

No.
 $-3 \neq -\frac{1}{2}(3) - 4$
 $-3 \neq -5.5$
 or, it is not on the line.

12) $y = -5x + 3$



$(0, 3)$
 $m = -5 = -\frac{5}{1}$

No.

$-3 \neq -5(3) + 3$
 $-3 \neq -12$
 or it is not on the line.