

Name: *Key*

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples
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Slope-Intercept Form

Linear equations are frequently written in slope-intercept form:

$$y = mx + b$$

slope
y-intercept

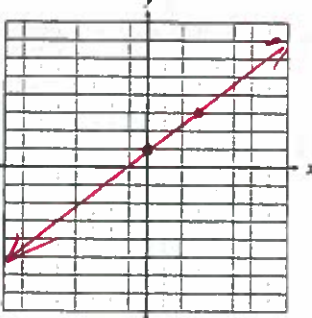
Steps to Graph

- **Step 1:** Graph the y-intercept. This is always point $(0, b)$.
- **Step 2:** Use the slope of the line to create more points. Remember slope is rise/run!
- **Step 3:** Use a ruler to draw a line that extends through the points, placing an arrow on both ends.

Directions: State the slope and y-intercept, then graph the equation.

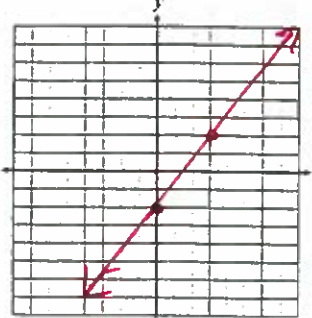
1. $y = \frac{2}{3}x + 1$

$b = 1 \rightarrow (0, 1)$
 $m = \frac{2}{3}$



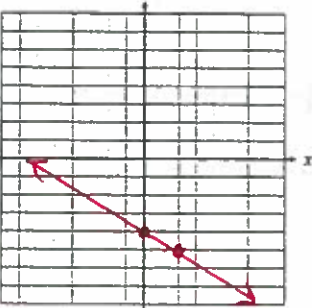
2. $y = \frac{4}{3}x - 2$

$b = -2 \rightarrow (0, -2)$
 $m = \frac{4}{3}$



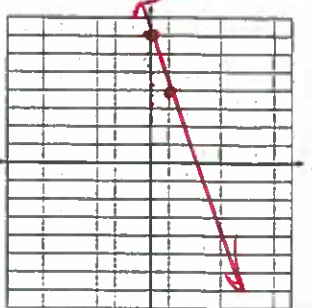
3. $y = -\frac{1}{2}x - 4$

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



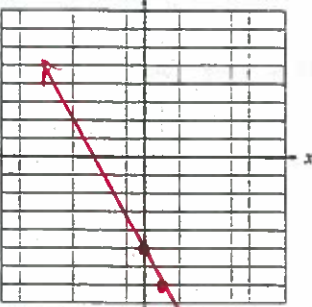
4. $y = -3x + 7$

$b = 7 \rightarrow (0, 7)$
 $m = -\frac{3}{1}$



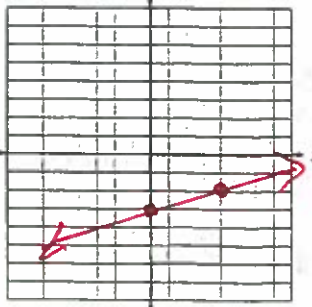
5. $y = 2x - 5$

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



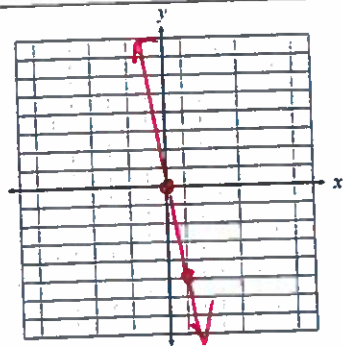
6. $y = \frac{1}{4}x - 3$

$b = -3 \rightarrow (0, -3)$
 $m = \frac{1}{4}$



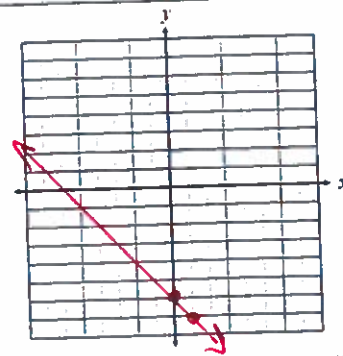
7. $y = -5x$

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



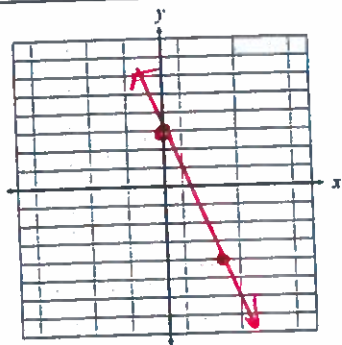
8. $y = -x - 6$

$b = -6 \rightarrow (0, -6)$
 $m = -\frac{1}{1}$



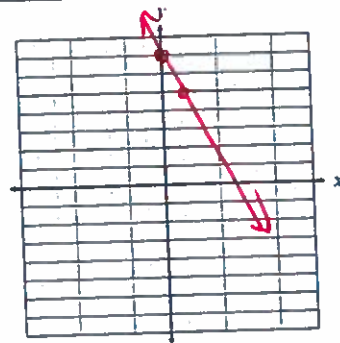
9. $y = -\frac{7}{3}x + 3$

$b = 3 \rightarrow (0, 3)$
 $m = -\frac{7}{3}$



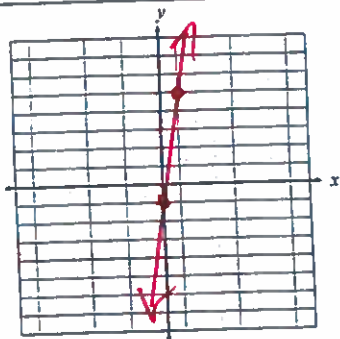
10. $y = -2x + 7$

$b = 7 \rightarrow (0, 7)$
 $m = -\frac{2}{1}$



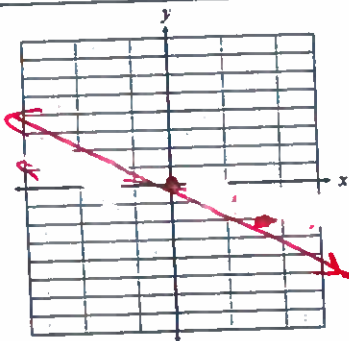
11. $y = 6x - 1$

$b = -1 \rightarrow (0, -1)$
 $m = \frac{6}{1}$



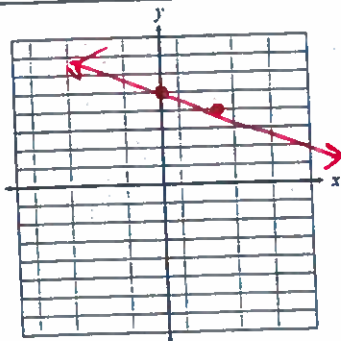
12. $y = -\frac{2}{5}x$

$b = 0 \rightarrow (0, 0)$
 $m = -\frac{2}{5}$



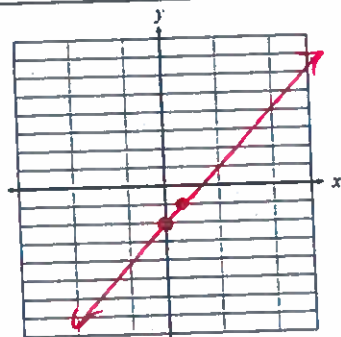
13. $y = 5 - \frac{1}{3}x$

$y = -\frac{1}{3}x + 5$
 $b = 5 \rightarrow (0, 5)$
 $m = -\frac{1}{3}$



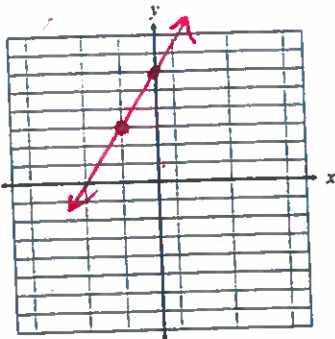
14. $y = -2 + x$

$y = x - 2$
 $b = -2 \rightarrow (0, -2)$
 $m = \frac{1}{1}$



15. $y = 6 + \frac{3}{2}x$

$y = \frac{3}{2}x + 6$
 $b = 6 \rightarrow (0, 6)$
 $m = \frac{3}{2}$



16. $y = 8 - \frac{7}{5}x$

$y = -\frac{7}{5}x + 8$

