

Equations of Lines – Slope-Intercept

$$y = mx + b$$

By looking at enough graphs of equations of lines, a pattern would emerge showing that a graph crosses the y-axis (y-intercept) when the value of x is zero. So **b** would be the y-intercept. Once you know the y-intercept, you use the slope to count up and over to find another point.

1. Find the y-intercept and the slope of $y = 2x + 3$
2. Find the y-intercept and slope of the $y = 3x - 2$
3. Find the y-intercept and slope of $y = -2x + 4$
4. Find the y-intercept and slope of $y = -3x - 2$
5. Find the y-intercept and slope of $y = \frac{2}{3}x + 4$
6. Find the y-intercept and slope of $y = \frac{-2}{5}x + 4$
7. Find the y-intercept and slope $y = \frac{-2}{5}x - 1$
8. Write the following equation in slope-intercept form, $3x + y = 8$
9. Write the following equation in slope-intercept form, $5x + y = -7$
10. Write the following equation in slope-intercept form, $3x - y = 4$

11. Write the following equation in slope-intercept form, $2x - y = 10$
12. Write the following equation in slope-intercept form, $3x + 2y = 6$
13. Write the following equation in slope-intercept form, $4x + 3y = 12$
14. Write the following equation in slope-intercept form, $4x + 5y = 9$
15. Write the following equation in slope-intercept form, $2x + 3y = 5$
16. Write the following equation in slope-intercept form, $2x - 3y = 7$
17. Write the following equation in slope-intercept form, $5x - 3y = 8$