

## 3-2 Equation of Lines in Slope intercept form

Name \_\_\_\_\_

Remember that  $y = mx + b$  is the equation of a line in slope-intercept form.

A helpful equation to remember is that  $y - y_1 = m(x - x_1)$ .

- \_\_\_\_\_ 1. Find the equation of the line, in slope intercept form, that goes through the point (2, 8) and has a slope of -3.
  
- \_\_\_\_\_ 2. Find the equation of the line, in slope intercept form, that goes through the point (-1, -2) and has a slope of  $\frac{1}{2}$ .
  
- \_\_\_\_\_ 3. Find the equation of the line, in slope intercept form, that goes through the point (2, 8) and (3, 10).
  
- \_\_\_\_\_ 4. Find the equation of the line, in slope intercept form, that goes through the point (-1, -8) and (-3, -12).
  
- \_\_\_\_\_ 5. Find the equation of the line, in slope intercept form, that goes through the point (0, 4) and has a slope of -5.
  
- \_\_\_\_\_ 6. Find the equation of the line, in slope intercept form, that goes through the point (0, 8) and (2, 10).
  
- \_\_\_\_\_ 7. Give the equation of the line, in slope intercept form, that is parallel to  $y = 8x - 5$  and passes through the point (1, 20).
  
- \_\_\_\_\_ 8. Give the equation of the line, in slope intercept form, that is parallel to  $y = 2x - 1$  and passes through the point (3, 9).
  
- \_\_\_\_\_ 9. Give the equation of the line, in slope intercept form, that is perpendicular to  $y = 2x - 5$  and passes through the point (2, 8).
  
- \_\_\_\_\_ 10. Give the equation of the line, in slope intercept form, that is perpendicular to  $y = 4x - 5$  and passes through the point (4, 12).