

Date: _____

5.1C Equation Writing in Slope-Intercept Form**Case I: Given slope and a point on the line**

- **Substitute slope into slope intercept form**
- **Substitute in the point and solve for b**

Ex. Determine the equation of the line, in slope-intercept form, with given slope and point:

a) $m = -2; (3, -1)$

b) $m = \frac{2}{3}; (-2, 5)$

Case II: Given two points on the line

- **Calculate slope using slope formula** $\left(m = \frac{y_2 - y_1}{x_2 - x_1}\right)$
 - **Substitute slope into slope intercept form**
 - **Substitute in the point and solve for b**
- } Same as case I

Ex. Determine the equation of the line, in slope-intercept form, with given points:

a) $(-4, 7) \& (-6, 2)$

b) $(6, -1) \& (-2, 5)$