

7) Find the x and y intercepts of the following equation:  $7x - 3y = 21$

**x-intercept**  $(3, 0)$   
 Step 1: Substitute 0 for y.  
 Step 2: Solve for x.

$$7x - 3(0) = 21$$

$$7x - 0 = 21$$

$$\frac{7x}{7} = \frac{21}{7}$$

$$x = 3$$

**y-intercept**  $(0, -7)$   
 Step 1: Substitute 0 for x.  
 Step 2: Solve for y.

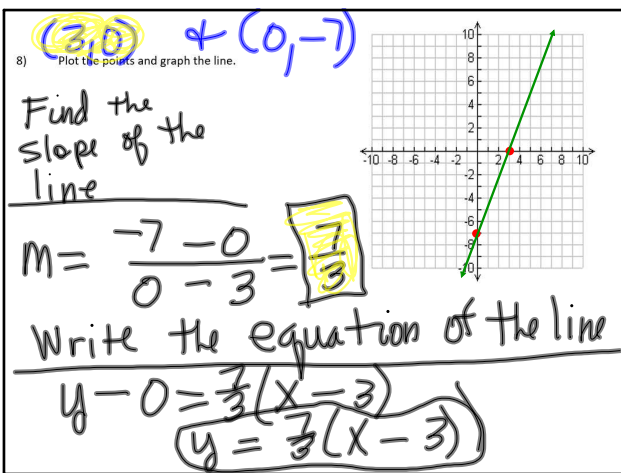
$$7(0) - 3y = 21$$

$$0 - 3y = 21$$

$$-3y = 21$$

$$\frac{-3y}{-3} = \frac{21}{-3}$$

$$y = -7$$



slope-intercept

$$3 \cdot y = \frac{7}{3}(x - 3) \cdot 3$$

$$\frac{3}{3}y = \frac{7x}{3} - \frac{21}{3}$$

$$y = \frac{7}{3}x - 7$$