

Rewriting in Slope Intercept Form

Directions: Fill in the blanks for converting a standard linear equation into Slope Intercept Form.

Variables
Describe a specific point

$$y = mx + b$$

Slope
Describes the slope of the line

y-intercept
Describes where the line crosses the y-axis

$$\begin{aligned}8x + 4y &= 16 \\8x + 4y = 16 &\text{ first subtract } \boxed{8x} \\4y = \boxed{} + 16 &\text{ then divide all by 4} \\y = \boxed{} + \boxed{} &\text{ slope form}\end{aligned}$$

$$2y = 4x + 2$$

(divide both sides by 2 to get y alone)

$$\begin{aligned}\frac{2y}{2} &= \frac{4x + 2}{2} \\2y &= \frac{2}{1}x + \frac{2}{1} \\y &= \boxed{} + \boxed{}\end{aligned}$$

$$\begin{aligned}3y - 5x &= 9 \\3y &= 5x + 9 \quad \text{Add } \boxed{5x} \text{ to both sides} \\y &= \frac{5x + 9}{3} \quad \boxed{3} \text{ both sides by } \boxed{3} \\y &= \frac{5x}{3} + \frac{9}{3} \quad \text{Split into 2 fractions} \\y &= \frac{5}{3}x + \boxed{} \\y &= -x + \boxed{}\end{aligned}$$

$$\begin{aligned}\cancel{2x} + 3y &= 6 \\3y &= \cancel{6} - \cancel{2x} \\y &= \boxed{} - \frac{\cancel{2}}{\cancel{3}}x \\y &= \boxed{} - \frac{2}{3}x + \boxed{}\end{aligned}$$

$$\cancel{4x} - y = -3$$

$$-y = -4x - 3$$

Slope = Y-Intercept = (,)

$$2y + 26 = -6x$$

Step 1: Subtract both sides by 26

Step 2: Divide both sides by 2 to get y by itself

Step 3: Simplify all fractions

What is the slope?

What is the y-intercept?