

Objective: Given an equation in standard form use properties of equality to rewrite in slope-intercept form.

1. $5x + 2y = 18$

$$\frac{-5x}{-5x} \quad \frac{-5x}{-5x} \quad \text{Subtraction property of equality}$$

$$\frac{2y}{2} = \frac{-5x + 18}{2} \quad \text{Division property of equality}$$

$$y = -\frac{5}{2}x + 9$$

3. $x + 3y = -6$

$$-x \quad -x$$

$$\frac{3y}{3} = \frac{-x-6}{3} \quad \frac{-x-6}{3}$$

$$y = -\frac{x}{3} - 2$$

5. $x - 6y = 6$

$$-x \quad -x$$

$$\frac{-6y}{-6} = \frac{-x+6}{-6} \quad \frac{-x+6}{-6}$$

$$y = \frac{x}{6} - 1$$

7. $y = -3$

$$y = 0x - 3$$

horizontal line

2. $4x + 3y = 9$

$$-4x \quad -4x$$

$$\frac{3y}{3} = \frac{-4x+9}{3} \quad \frac{-4x+9}{3}$$

$$y = -\frac{4}{3}x + 3$$

4. $2x - 5y = 20$

$$-2x \quad -2x$$

$$\frac{-5y}{-5} = \frac{-2x+20}{-5} \quad \frac{-2x+20}{-5}$$

$$y = \frac{2}{5}x - 4$$

6. $8x - 2y = 10$

$$-8x \quad -8x$$

$$\frac{-2y}{-2} = \frac{-8x+10}{-2} \quad \frac{-8x+10}{-2}$$

$$y = 4x - 5$$

8. $x = 5$

impossible

vertical line