

Graphing Inequalities with Two Variables



Overview of problems



Example Set: A

Determine if the ordered pair is a solution to the inequality

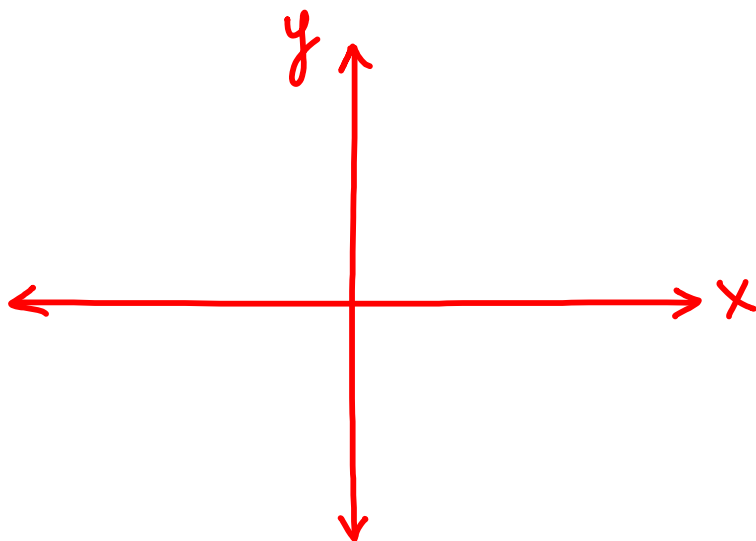
$$y - x > 9, \quad (1, 4)$$

$$2x + 7y \leq -3, \quad (0, -2)$$

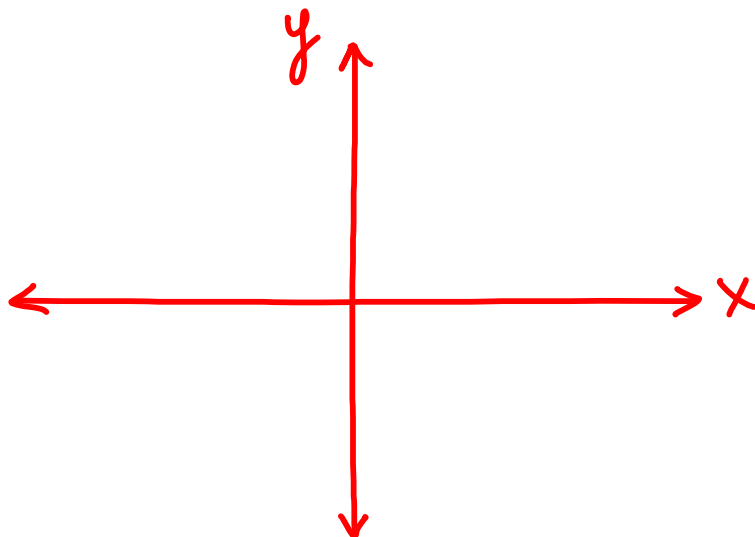
$$y > \frac{1}{2}x + 4, \quad (-3, 7)$$

Graph the inequality

$$x < 6$$



$$y \geq -3$$

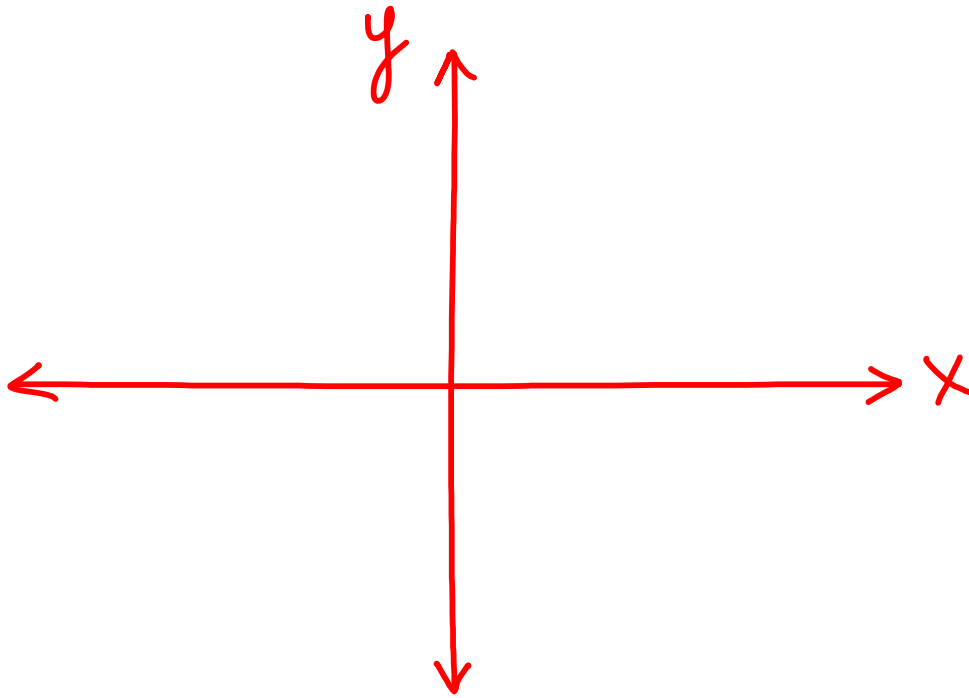




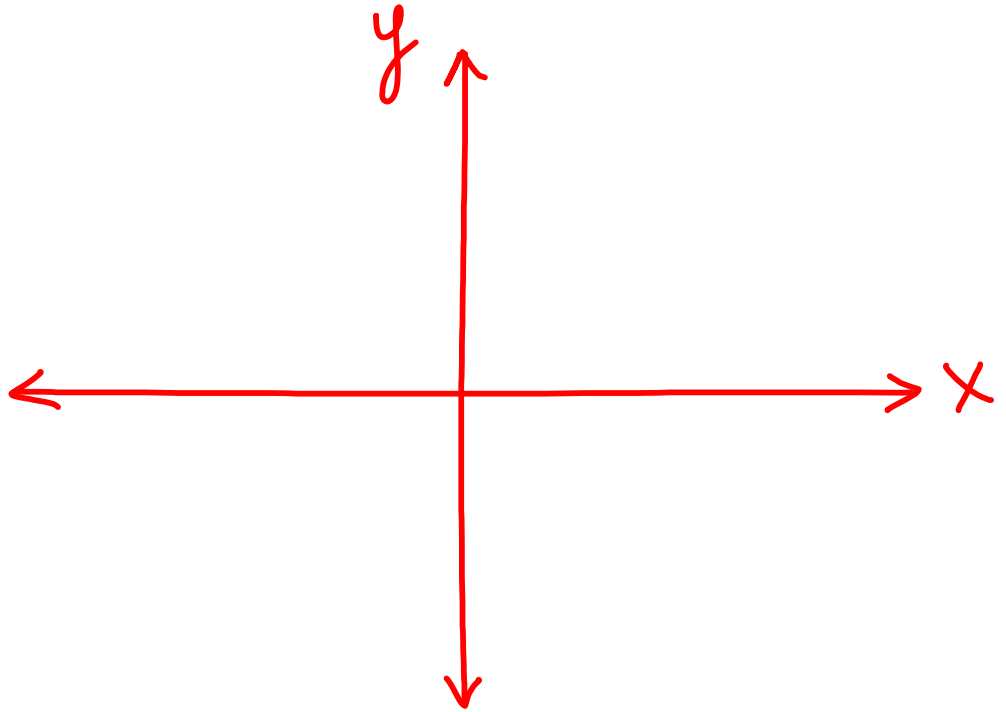
Example Set: B

Graph the inequality

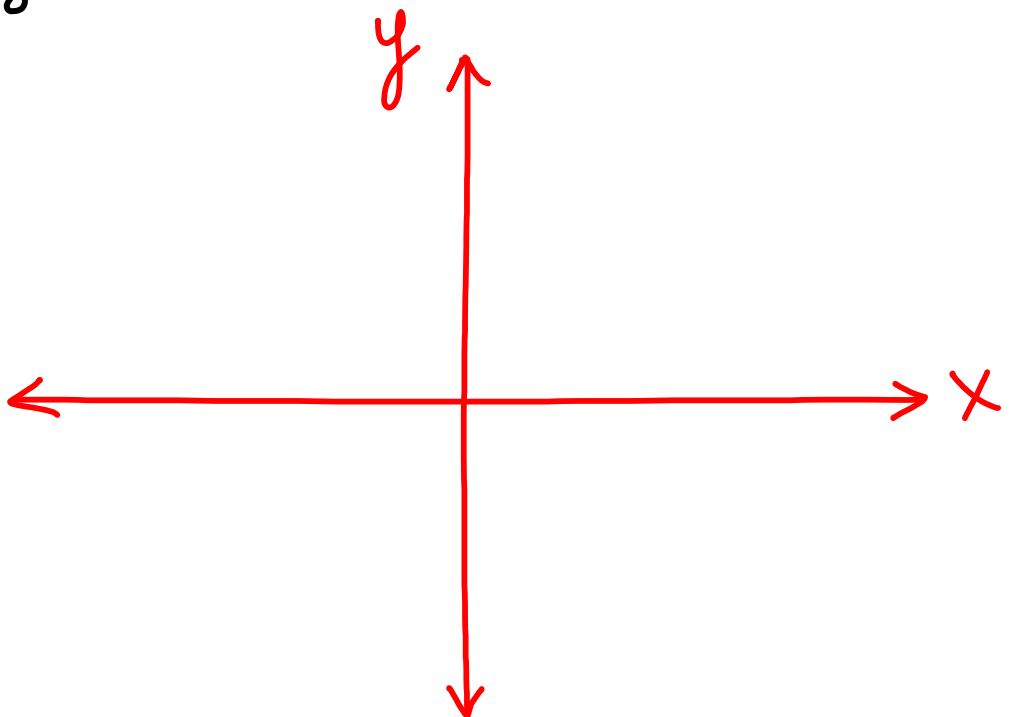
$$y < 2x + 5$$



$$y \geq -\frac{1}{3}x - 10$$



$$4x - y < 8$$

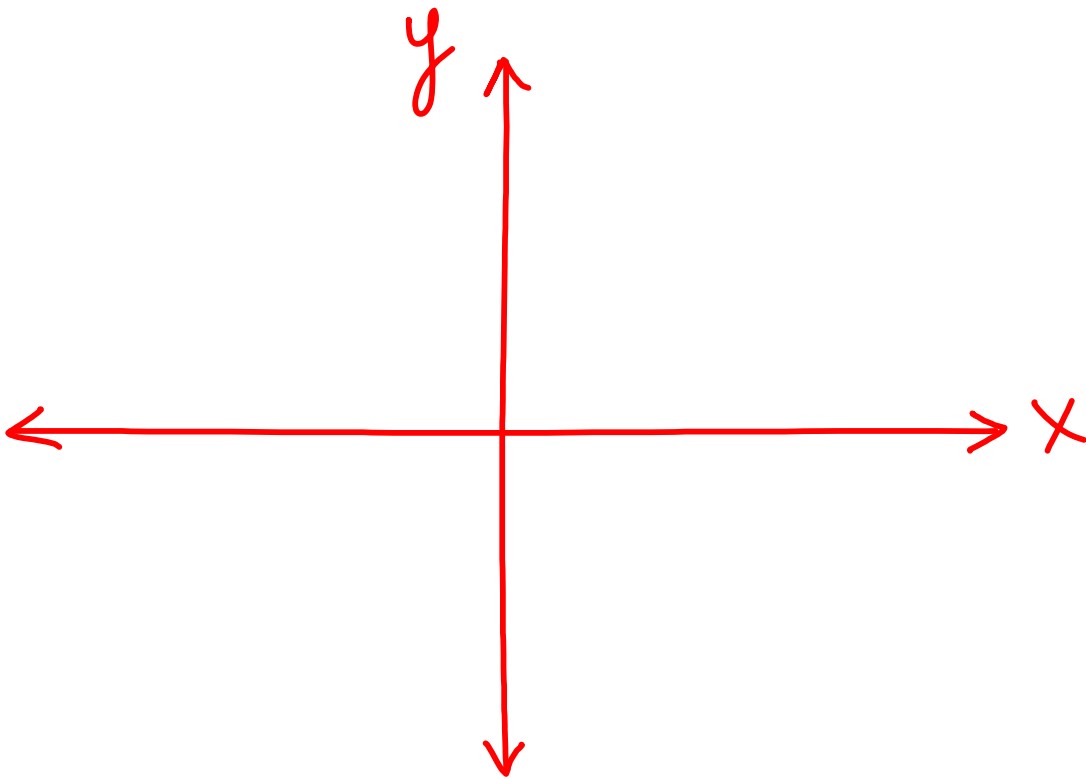




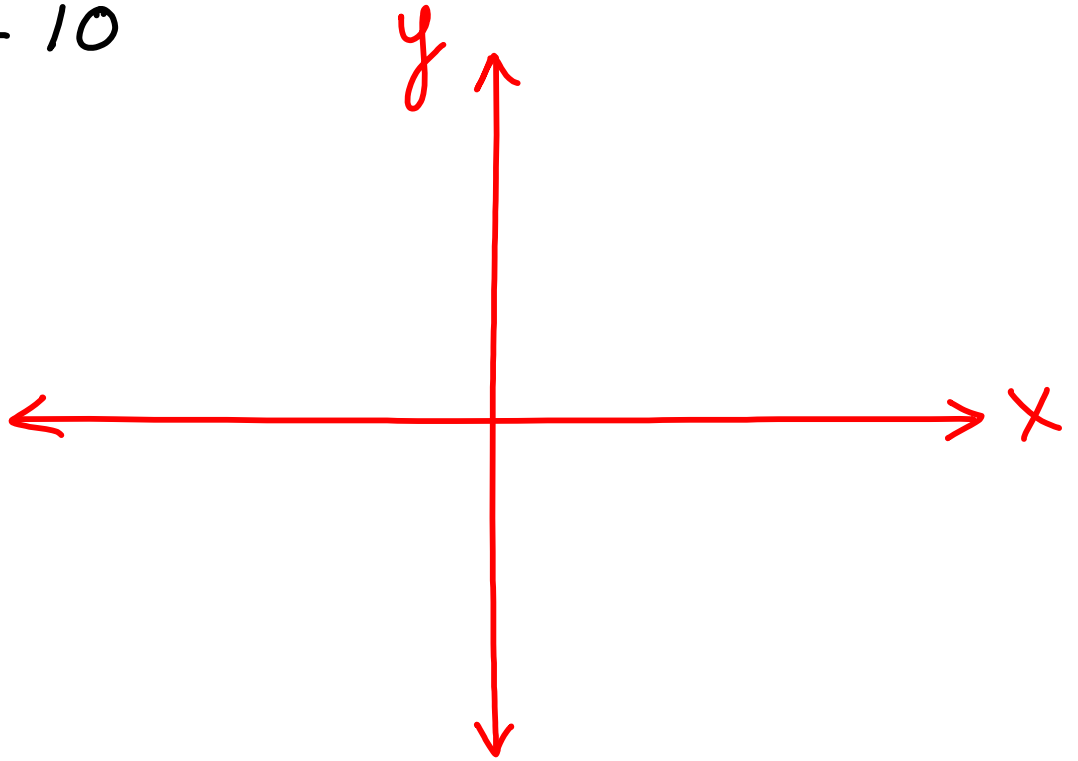
Example Set: C

Graph the inequality

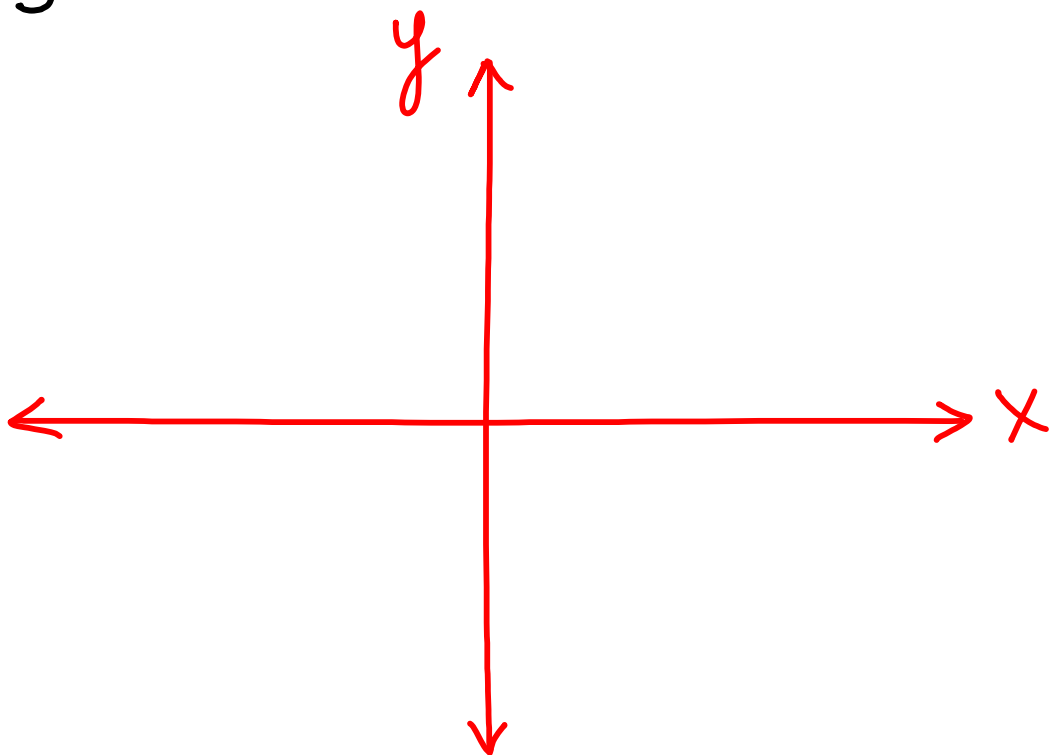
$$-2x - y \leq -6$$



$$y > -\frac{2}{5}x + 10$$



$$3y \leq x - 15$$



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Overview of problems- KEY



Example Set: A

Determine if the ordered pair is a solution to the inequality

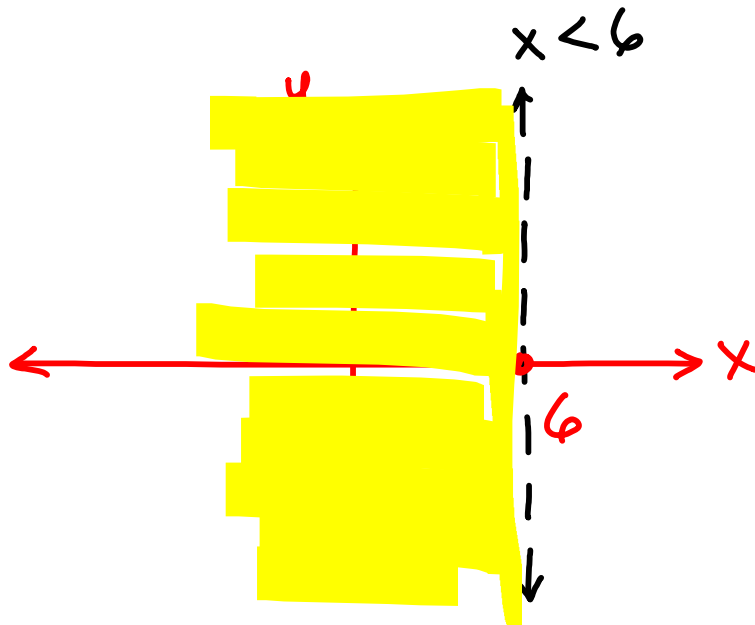
$$y - x > 9, \quad (1, 4) \quad \text{NO}$$

$$2x + 7y \leq -3, \quad (0, -2) \quad \text{yes}$$

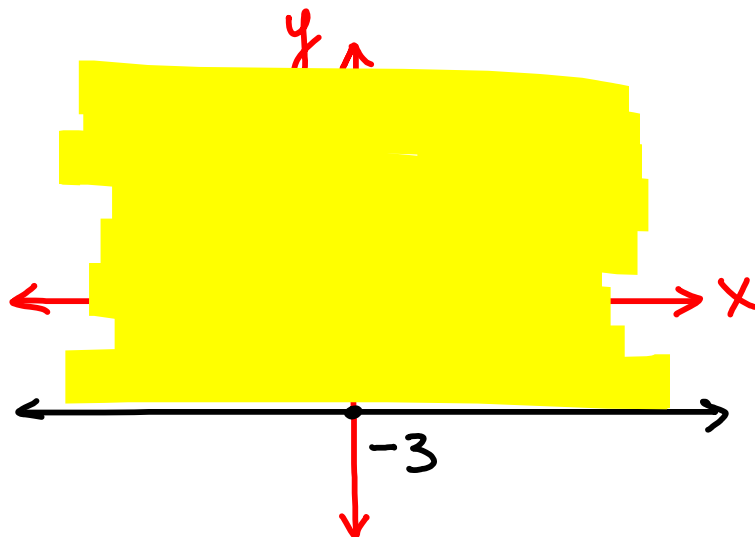
$$y > \frac{1}{2}x + 4, \quad (-3, 7) \quad \text{yes}$$

Graph the inequality

$$x < 6$$



$$y \geq -3$$



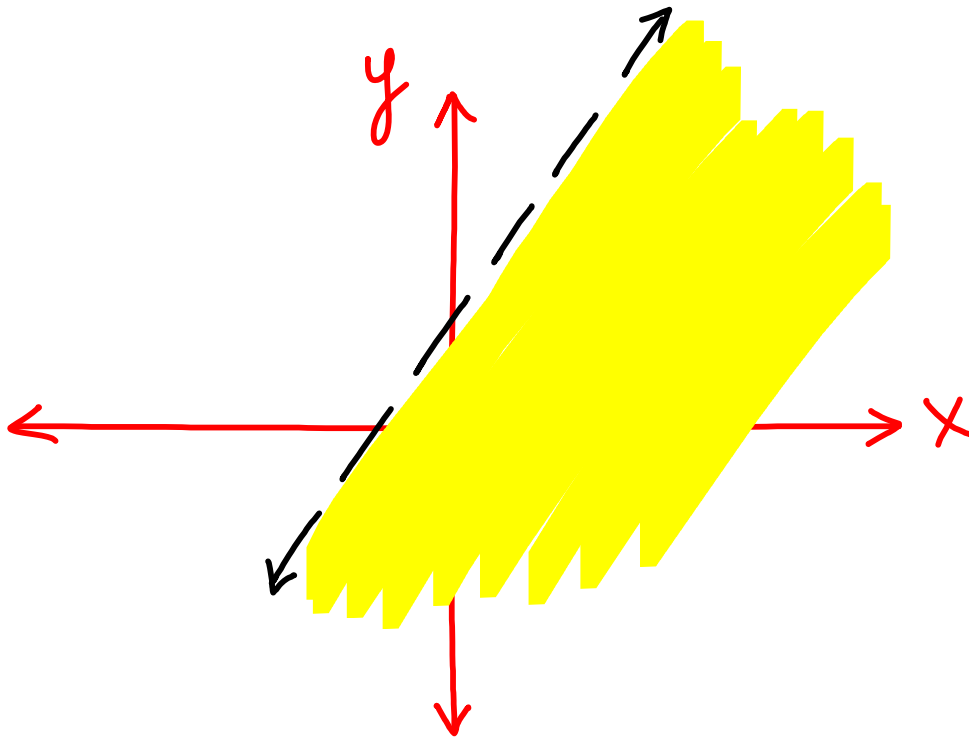
$$y \geq -3$$



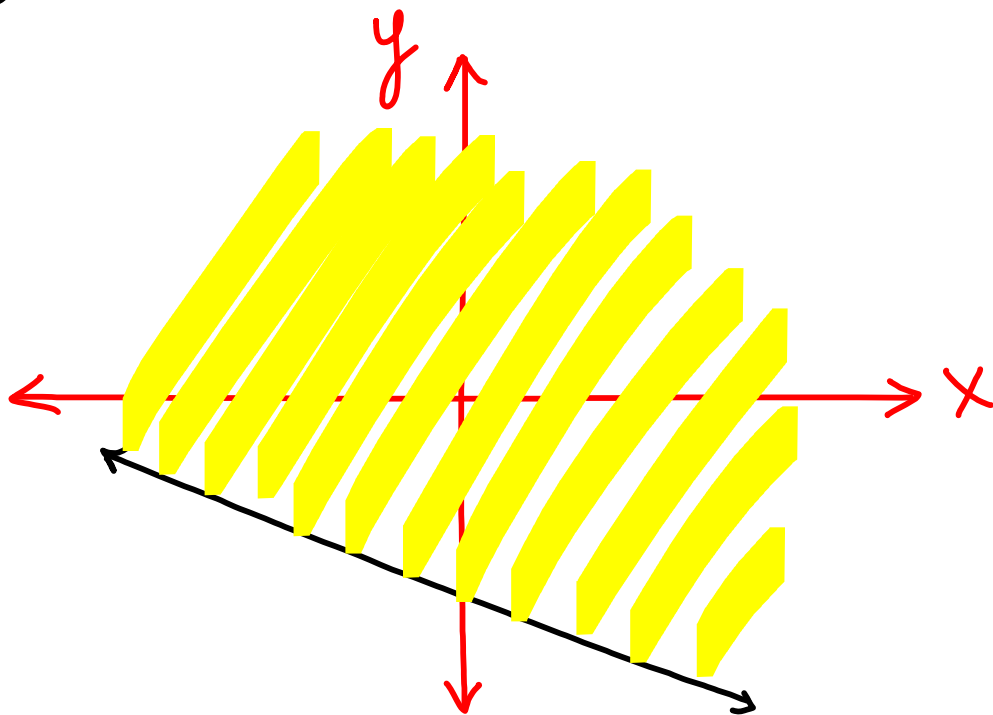
Example Set: B

Graph the inequality

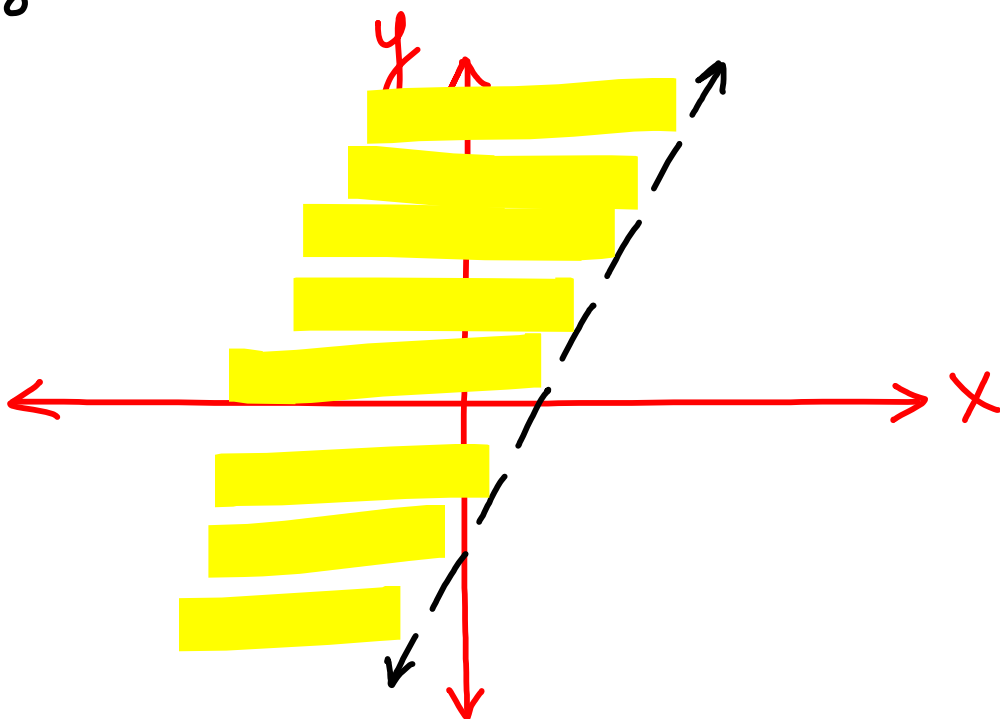
$$y < 2x + 5$$



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$$4x - y < 8$$

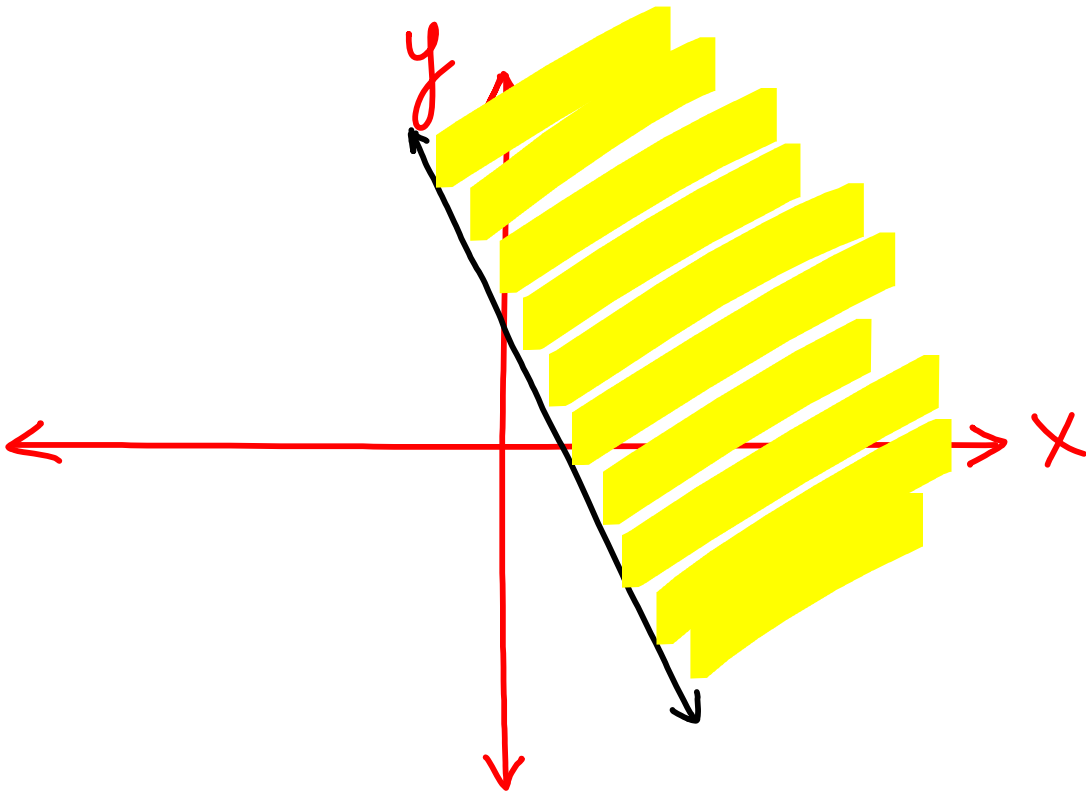




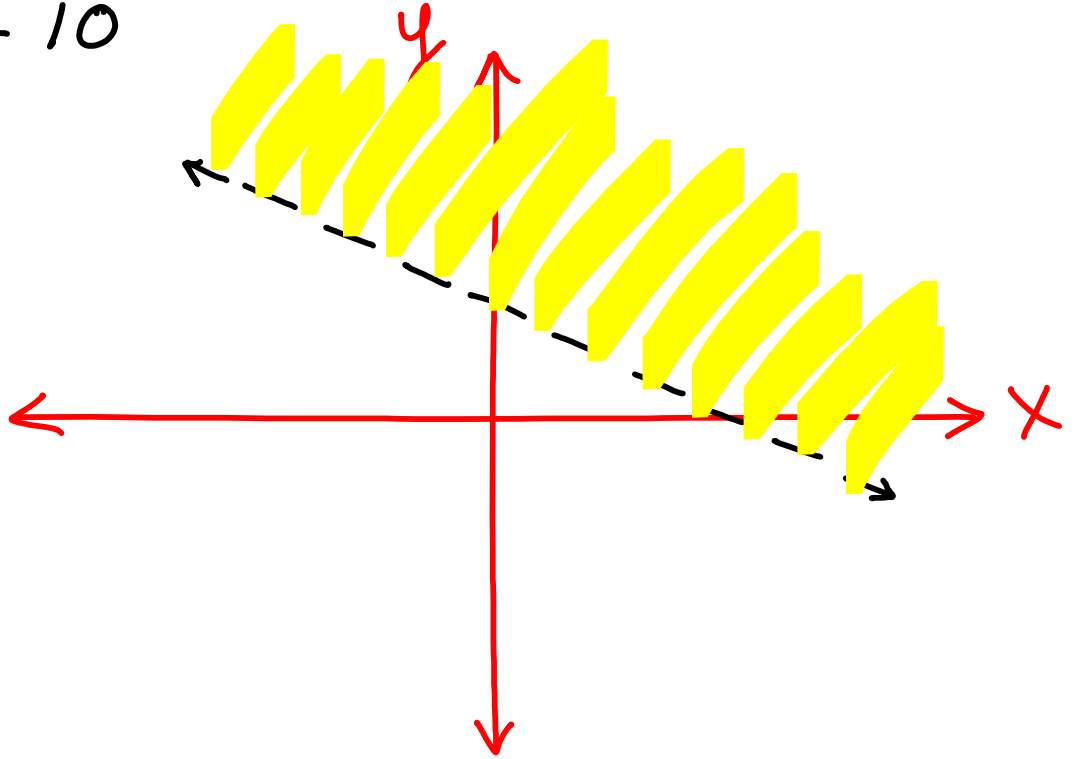
Example Set: C

Graph the inequality

$$-2x - y \leq -6$$



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