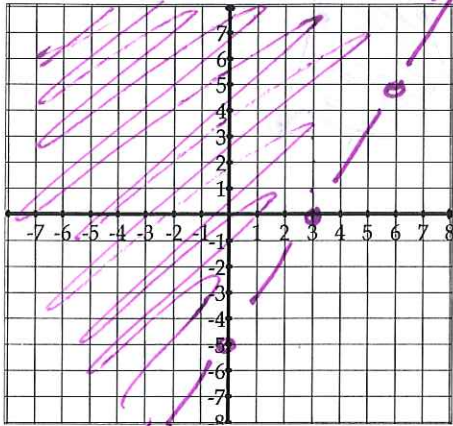


Algebra II

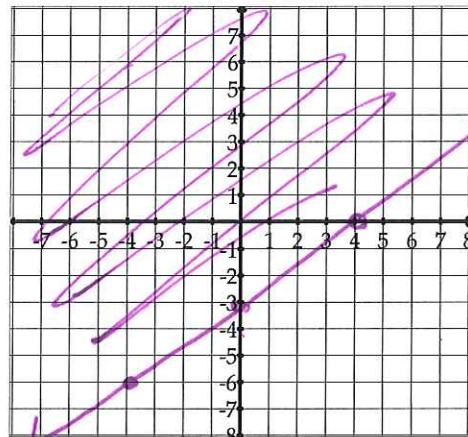
Graph the solutions to  $5x - 3y < 15$ .

$y > \frac{5}{3}x - 5$

$-3y < -5x + 15$   
 $-\frac{3y}{3} < \frac{-5x + 15}{3}$   
 $-y < -\frac{5}{3}x + 5$   
 $y > \frac{5}{3}x - 5$

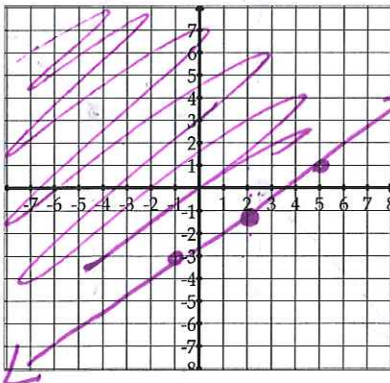


Graph the solutions to  $y \geq \frac{3}{4}x - 3$ .

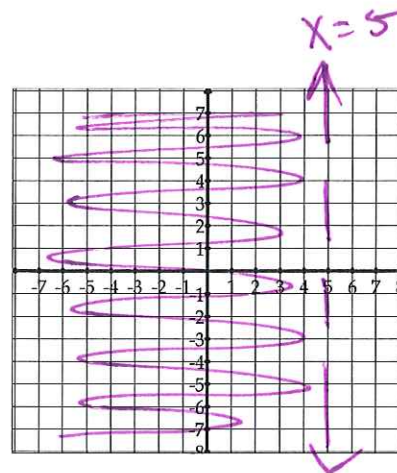


Graph the solutions to  $y + 1 \geq \frac{2}{3}(x - 2)$

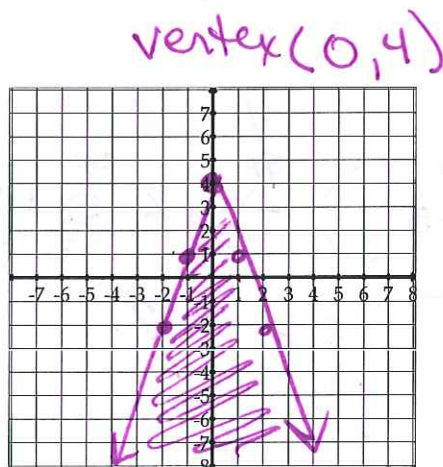
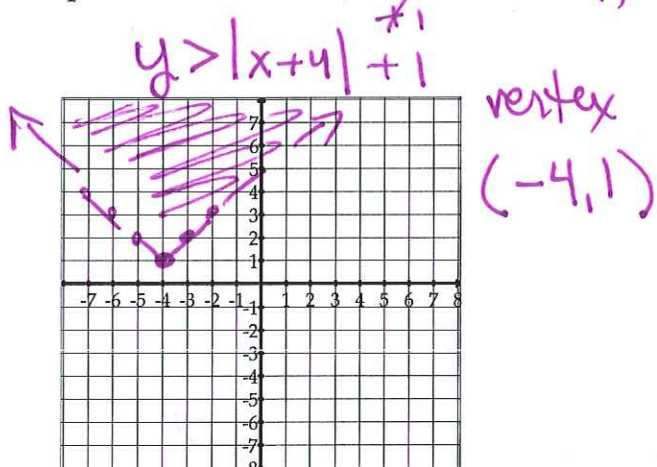
point:  $(x_1, y_1)$   $m = \frac{2}{3}$   
 $(2, -1)$



Graph the solutions to  $x < 5$



Graph the solutions to  $y - 1 > |x + 4|$  +) Graph the solutions to  $y \leq -3|x| + 4$



Essential question: Why must we use a graph to represent inequalities with 2 variables?

because there are infinite solutions  $[(x, y) \text{ ordered pairs}]$  that satisfy the inequality.

### Review

$$\text{Graph } f(x) = \begin{cases} x + 1, & x \leq -4 \\ 5, & -4 < x < 2 \\ x - 2, & x \geq 2 \end{cases}$$

