4.3 Solving Polynomial Inequalities (Day 1)

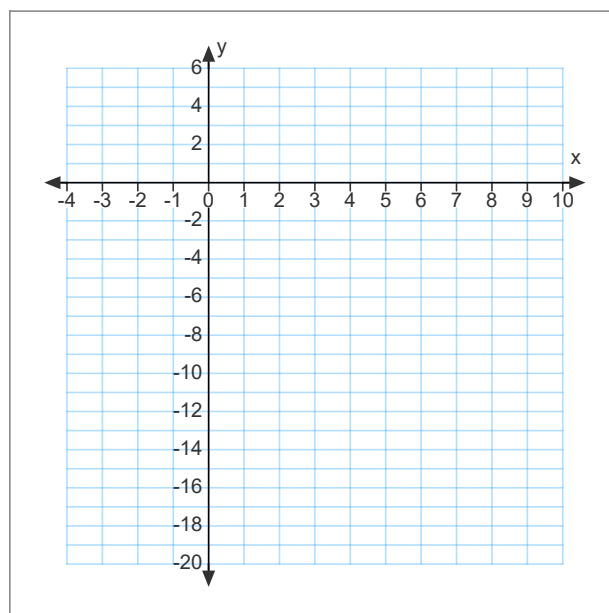**Math Learning Target:**
  "By the end of next class, I can solve any polynomial inequality."

  A **polynomial inequality** is an inequality that contains polynomial expressions.
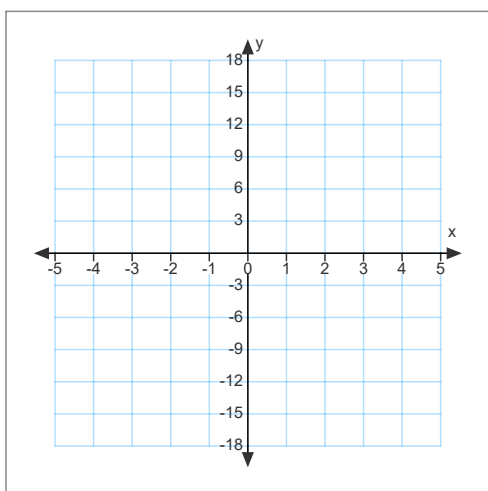
Ex. 1: Solve $x^2 - 5x - 14 \geq 0$

Interval			
Sign of $f(x)$			

$y = x^2 - 5x - 14$

Ex. 2: Solve $x^4 + 3x^3 - 3x^2 - 11x < 6$

Interval				
Sign of $f(x)$				

$$y = x^4 + 3x^3 - 3x^2 - 11x - 6$$

Entertainment: Use a chart to organize your solution instead of a "number line strategy".
pp. 225-228 #1ab, 2, 5, 6*, 7abc, Challenge #17

Error in answer for 6e. The answer should be: $x \leq \frac{-3}{2}$ or $x \geq 3$