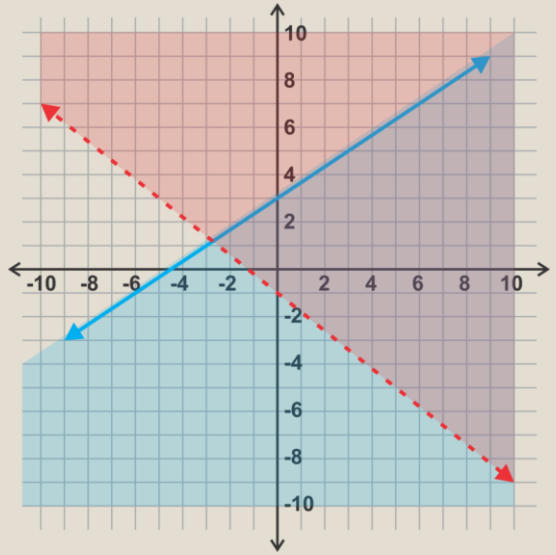
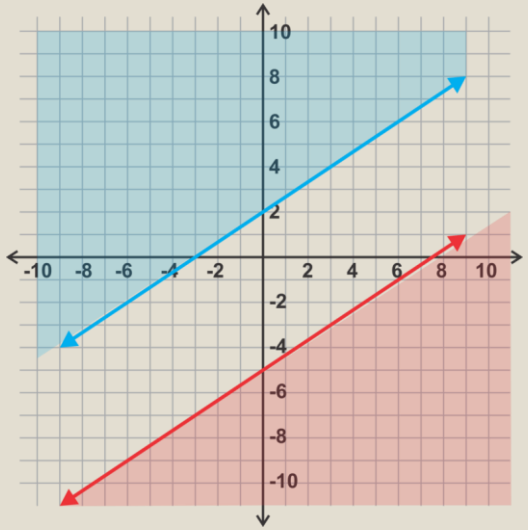
SYSTEMS OF INEQUALITIES

"Quick Notes"

How many solutions are there?

- Because inequalities require you to shade above or below a graphed line, the solutions are where the shades overlap so..
- Many or None





How do I find the solutions?

- GRAPH!

  Step 1: Put the inequalities into Slope-Intercept Form

  Step 2: Graph the lines using Y-Intercept and Slope

  - If the inequality is < or >, the line is DASHED
  - If the inequality is ≤ or ≥, the line is SOLID

  Step 3: Shade!

  - Shade ABOVE for y≥ or y>
  - Shade BELOW for y≤ or y<

Practice! Graph each line on one coordinate plane…

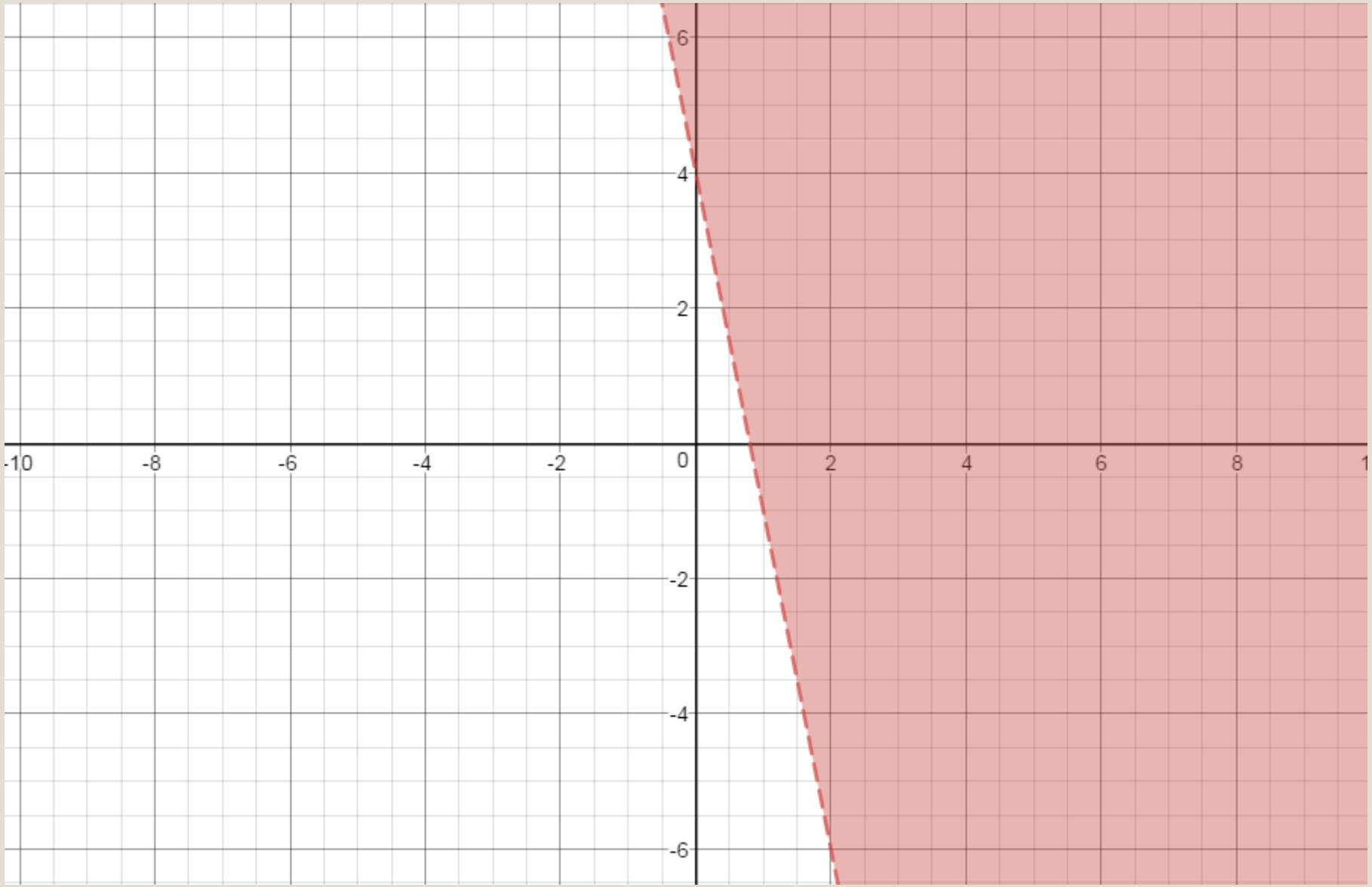
1. $y > -5x + 4$

2. $x < 4$

3. $y \geq -3$

4. $2x - 3y \leq 6$

1.



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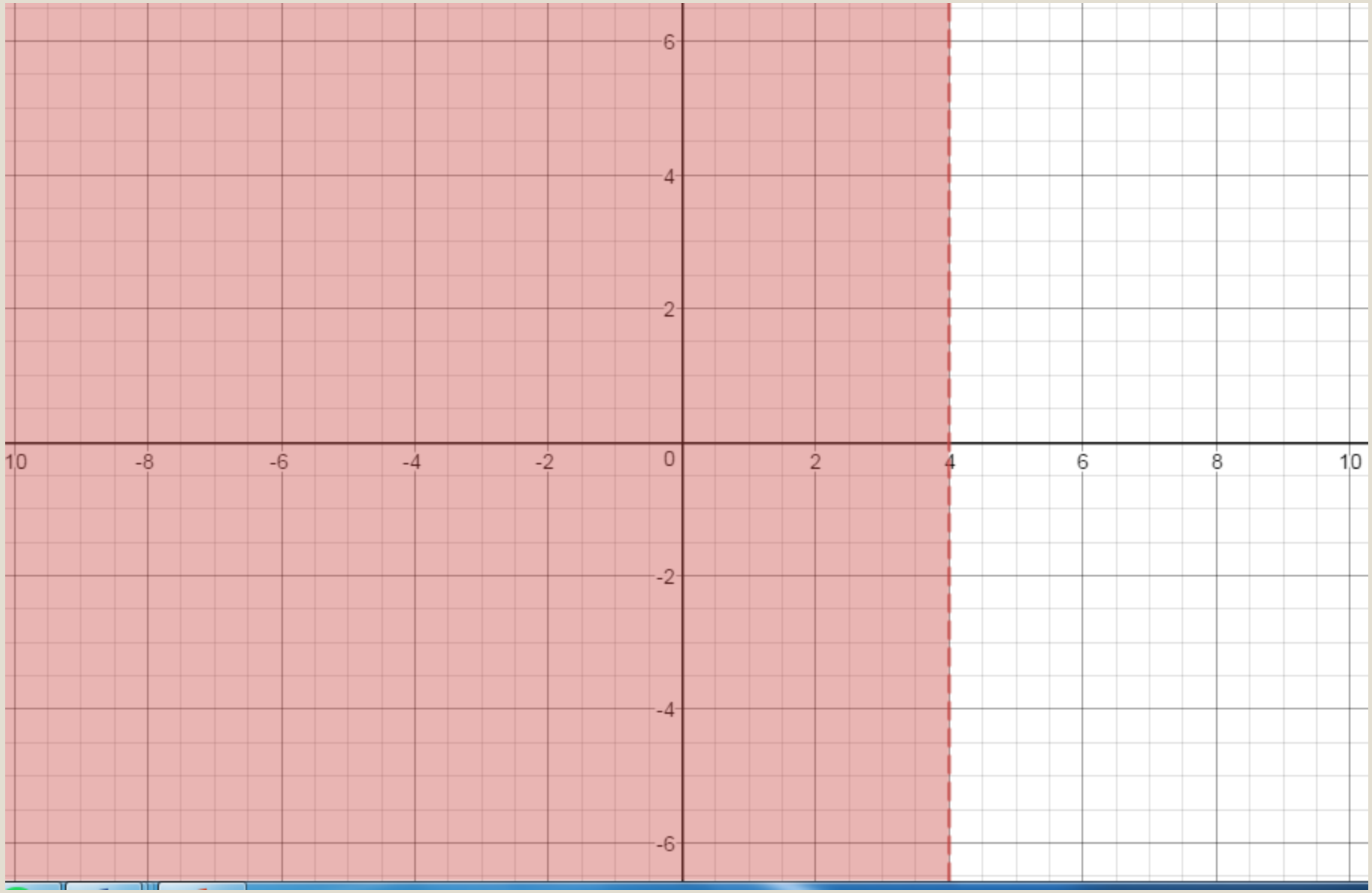

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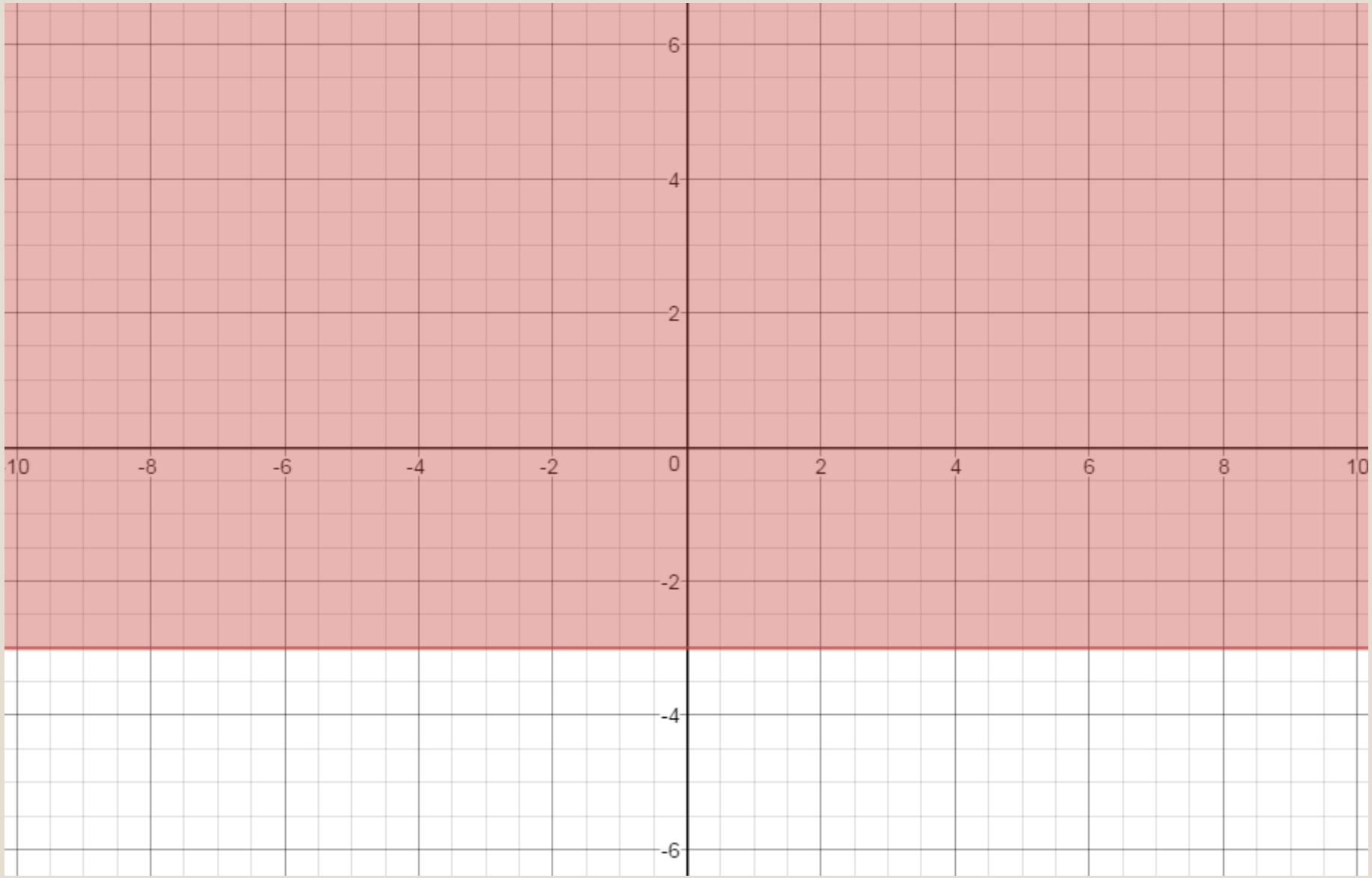

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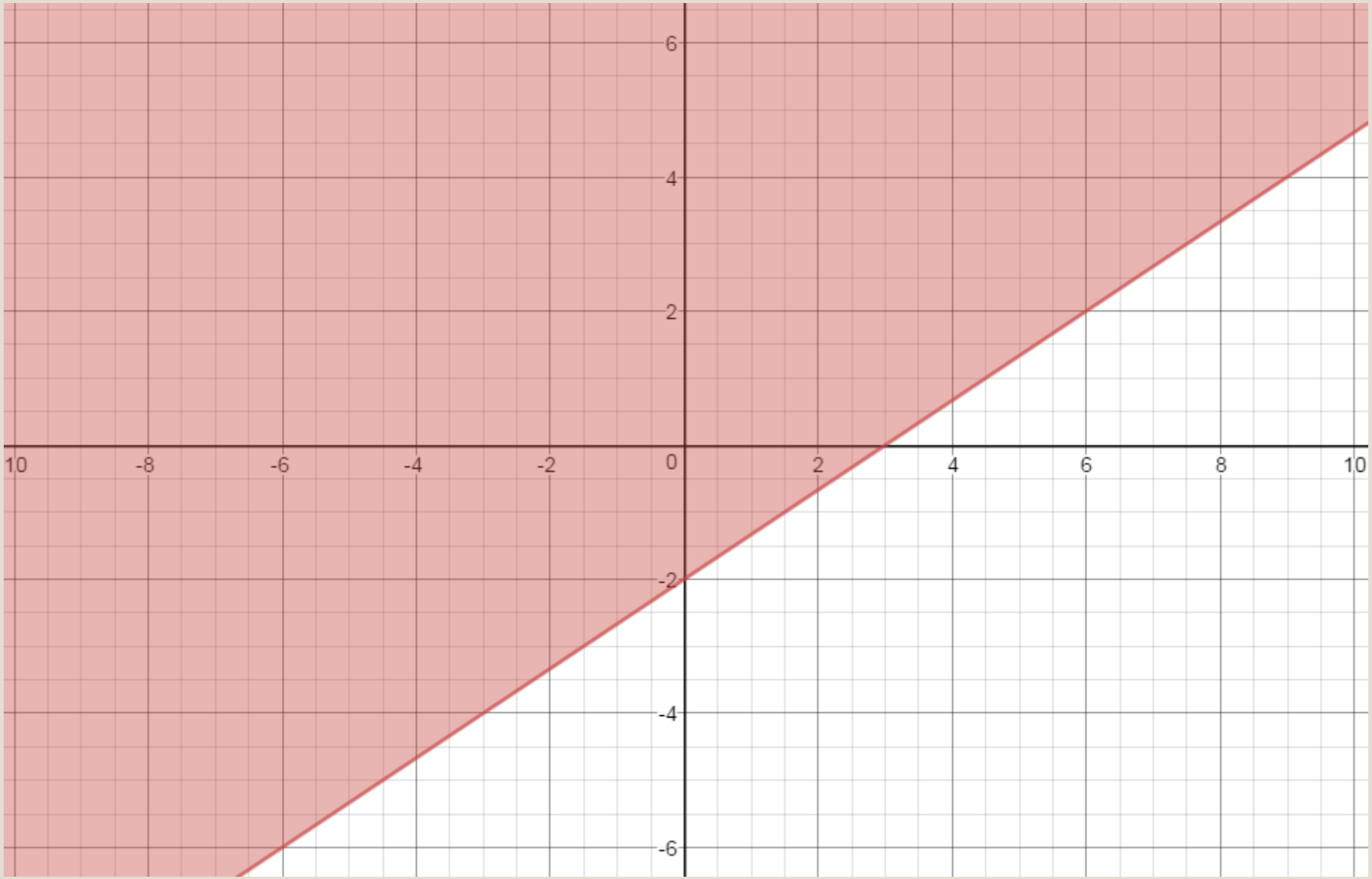

Find the solution to the system of all 4 inequalities.