

Objective 3 - Solve Compound Linear Inequalities

Solve linear inequalities.

[Link to section in online textbook.](#)

Watch [this video](#) to learn how to solve compound inequalities. For both kinds of compound inequalities, we first split it into two inequalities, solve separately, then put them back together at the end.

Question 1 $\frac{9}{5}x + \frac{9}{8} < -\frac{4}{3}x - \frac{3}{2}$ or $-\frac{4}{3}x - 1 > -2x - \frac{5}{2}$

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Hint: There are four boxes so you can input the entire interval. Each interval should be:
 (or [
 number or ∞
 number or ∞
) or]

Question 2 $\frac{6}{7}x - \frac{3}{5} \leq -\frac{5}{9}x + 5$ or $\frac{10}{7}x - 3 \geq -\frac{1}{3}x + 1$

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Question 3

$$7x - 8 < \frac{39}{5}x + 1 < -6x + 6$$

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Learning outcomes: Understand and solve linear inequalities.
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Question 4

$$5x + 6 \leq \frac{13}{2}x - \frac{7}{6} \leq 6x + 6$$

[4.777777777777778, 14.333333333333334]