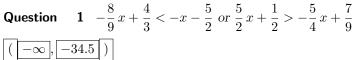
Objective 3 - Solve Compound Linear Inequalities

Solve linear inequalities.

Link to section in online textbook.

Watch <u>this video</u> 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.



$$\begin{array}{c|c} (\ \ \,] -\infty \ \, , \ \, | -34.5 \ \,) \\ \hline (\ \ \,] 0.074 \ \, , \ \, | +\infty \ \,) \\ \hline \end{array}$$

Hint: There are four boxes so you can input the entire interval. Each interval should be:

(or [number or ∞

number or ∞

Question 2 $x + \frac{1}{3} \le -x - \frac{9}{4} \text{ or } -\frac{8}{7}x - \frac{8}{9} \ge -\frac{5}{3}x - \frac{6}{5}$

Hint: There are four boxes so you can input the entire interval. Each option should be:

(or [

number or ∞

number or ∞

) or]

Learning outcomes: Understand and solve linear inequalities. Author(s): Darryl Chamberlain Jr.

Objective 3 - Solve Compound Linear Inequalities

Question 3

$$-4x - 7 < -\frac{10}{3}x + \frac{4}{3} < -6x - 8$$

$$(-12.5, -3.5)$$

Hint: There are four boxes so you can input the entire interval. Each option should be:

(or [

number or ∞

 $number\ or\ \infty$

) or]

Question 4

$$-3\,x - 4 \le -2\,x + \frac{3}{2} \le -5\,x - 7$$

Hint: There are four boxes so you can input the entire interval. Each option should be:

(or [

 $number\ or\ \infty$

number or ∞

) or]