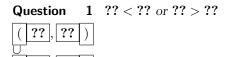# Objective 3 - Solve Compound Linear Inequalities

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 $?? < ??$ *or* $?? > ??$

(| ?? |, | ?? |)
∪
(| ?? |, | ?? |)

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

Question   2 $?? \leq ??$ *or* $?? \geq ??$

(| ?? |, | ?? |]
∪
[| ?? |, | ?? |)

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.

Question 3

$$?? < ?? < ??$$

([??] , [??])

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

Question 4

$$?? \leq ?? \leq ??$$

[[??] , [??]]

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