Lesson 16: Solving and Graphing Inequalities Joined by “And” or “Or”

Classwork

Exercise 1

1. Solve , for . Graph the solution on a number line.
2. Solve for . Graph the solution on a number line

and write the solution set as a compound inequality.

1. Solve for . Graph the solution on a number line

and write the solution set as a compound inequality.

1. Quickly solve , for . Graph the solution on a number line.
2. Use your work on (4) to quickly graph the solution on a number line to each inequality below.
   * 1. ii.

Exercise 2

Consider the compound inequality

* 1. Rewrite the inequality as a compound statement of inequality.
  2. Write a sentence describing the possible values of.



* 1. Graph the solution set on the number line.

Exercise 3

Consider the compound inequality .

* 1. Rewrite the inequality as a compound statement of inequality.
  2. Solve each inequality for . Then, write the solution to the compound inequality.
  3. Write a sentence describing the possible values of .



* 1. Graph the solution set on the number line.

Exercise 4

Given

* 1. What must be true in order for the compound inequality to be a true statement?
  2. Write a sentence describing the possible values of .



* 1. Graph the solution set on the number line.

Exercise 5

Given

* 1. Solve each inequality for .

Then, write the solution to the compound inequality.

* 1. Write a sentence describing the possible values of .



* 1. Graph the solution set on the number line.

Problem Set

Solve each compound inequality for and graph the solution on a number line.

* 1. 
  2. 

















g.



h.







