Algebra I

Notes Section 5.1

Solve Inequalities Using Addition and Subtraction

Big Ideas

- 1. How to solve the inequality by adding or subtracting the same number from each side of the inequality.
- 2. How to graph the inequality with an open or closed circle and shade the number line in the appropriate direction.

Graphs of Inequalities



EXAMPLE 1

The highest temperature recorded in the US was 134°F at Death Valley, California, in 1913. Use only this fact to write and graph an inequality that describes the temperatures in the U.S.

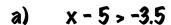


EXAMPLE 2 Write an inequality represented by the graph.





EXAMPLE 3 Solve and graph your solution.





EXAMPLE 4 Solve and graph your solution.

a)
$$9 \ge x + 7$$



You are checking a bag at an airport. Bags can weigh no more than 50 pounds. Your bag weighs 16.8 pounds. Find the possible weights s (in pounds) that you can add to the bag.