

Name: _____

Date: _____

Notes

Algebra Section 6.1

Pages 356-361

Goal: "You will solve inequalities using addition and subtraction"



$x \geq 5$ means that x can be:

$x < -1$ means that x can be _____. x CANNOT be _____!

To Graph a Number on a number line:

1. Start with the _____ on the _____.

2. Place a _____ (filled in) circle if _____ or _____. This means that the number is _____ in the solution.

Place an _____ (not filled in) circle if _____ or _____. This means that the number is _____ in the solution.

3. Draw an _____ pointing to all of the other _____.

Graph the following inequalities on a number line:

Ex: Graph $x < 3$.



Ex: Graph $x \geq -1$



Ex: Graph $5 \geq x$



Solving inequalities using addition and subtraction:

1. Solve like a normal _____ . (use _____)

2. Graph the _____ on a _____ .

Ex: $x - 5 > -3.5$



Solve and graph solution on a number line:

Ex: $x - 9 \leq 3$

Ex: $p - 9.2 < 5$

Ex: $-1 \geq m - \frac{1}{2}$



Ex: $9 \geq x + 7$

Ex: $y + 5.5 > 6$



Ex: 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 w (in pounds) that you can add to the bag.