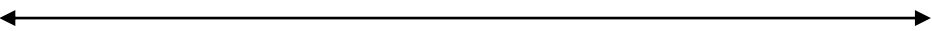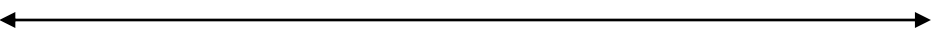| Topic: Solving Linear Inequalities Using Addition and Subtraction	Name: _____ Class: Math 9 Date: _____
Questions/Main Ideas:	**Notes:**

Goal:
1. Use addition and subtraction to solve inequalities.

Review:

Which of the following is a solution for $d \leq -3\frac{1}{3}$?

1. -3.5　　　　　　　2. 0　　　　　　　3. -3

Graph each inequality.

1. $c < 7$

$\longleftarrow\!\longrightarrow$

2. $m \geq -2$

$\longleftarrow\!\longrightarrow$

Solving inequalities:

When solving inequalities we use the same methods that we use when solving equations

$x + 4 = 9$　　　　　　　　$x + 4 < 9$

It is important to note that when we add or subtract a number to both sides of an inequality the inequality stays true.

Examples:

For each of the following inequalities, solve the inequality, verify the solution and graph the solution.

1. $m - 3 \geq -2$

2. $4.2 + 2x < x - 6.5$

3. $y + 5 > 8$

4. $-11 + 3a \geq 2a + 4$

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