Name: _____ M$5 Homework 2

1. Solve the inequality and graph the solution set on a number line:

$4d + 3 \leq 19$

2. Solve the inequality and graph the solution set on a number line:

$8y - 3y + 1 \leq 31$

3. Solve the inequality and graph the solution set on a number line:

$8x < 5(2x + 4)$

4. Name the property illustrated in each equation below:

a. $m + 2n = 2n + m$

b. $(r + s) + t = t + (r + s)$

c. $14x - 4x = (14 - 4)x$

5. Graph the solution set on a number line:

$x > -2$ and $x \leq 4$

6. Solve the inequality and graph the solution set on a number line:

$-1 \leq x - 1 < 4$

7. State whether the set is closed under (*i*) addition (*ii*) subtraction (*iii*) multiplication (*iv*) division. Give a reason for your answers.

a. {1,3,5}

b. {all positive multiples of 3}