1. **Please review class hand out about number sets.** It is posted on the class page. List all sets a number belongs to.

   For example: 5 $\in$ N, W, Z, Q; $\frac{3}{31}$ $\in$ Q.

   $-3\frac{1}{31}$; -7, 0, 55, 7

2. Open parenthesis, simplify (collect similar terms):

   $$3a(a - 3b) - (2a^2 - 6ab) + 2b(-a - b) =$$

3. Open parenthesis, simplify:

   (a) $3(a - 5) - 2(2a - 9) =$ (b) $12x - 3x(x + 4) =$

   (c) $5x - 5(7 - a + x) =$ (d) $-3z - (z - 4) + 2(2z - 5) =$

   (e) $a(a + b) + b(a + 1) =$ (f) $2a(a - 2) - a(a - 1) =$

4. John bought a large bag of red, green, and blue candies for Halloween, 74 candies in all. The number of red candies is one less than the number of green candies, and there are as many blue candies as red and green together. How many pieces of candy of each color are there?

5. A boy had a bag of apples. He gave 1/2 of them to his parents, 1/5 to his brother, 1/4 to his sister and the last apple he ate himself. How many apples did he originally have?

6. *Right now, Jane is 5 and her father is 42. a) In how many years will he be twice as old as she? b)Three times as old? [hint: denote the number of years by x and write the equation for x].*

7. A hot water tap fills the bath in 5 minutes. The cold water tap fills the bath in 3 minutes. With both taps open, how long will it take to fill the bath?

8. On the handout provided on the next page mark sets with a corresponding letter and color with color pencils or crayons (no markers please). Attach this page to your homework.

   a. Integers **Z**   **RED**
   b. Prime numbers **P**   **BLUE**
   c. Whole numbers **W**   **YELLOW**
   d. Natural numbers **N**   **GREEN**