**M10 Polynomials Name: \_\_\_\_\_\_\_\_\_\_\_\_**

**PLEAE READ!!!!!!!!!!!!!!**

When we factor essentially we are working backwards from the answer to the question. Or moreover making it easier to see how something got to where it is( ie 12..is 2x6 so we can see how we get to 12). Part of that is as follows:

When we want to reduce (as I showed you on the board) we do it by finding the **greatest common factor or GCF.**  This can be done with numbers and variables.

Complete the following so you can practice finding the GCF

1. Determine the greatest common factor (GCF) of the following pairs.

(a) 25, 90 (b) 16, 64 (c) 24, 78 (d) 48, 60

1. Reduce each fraction to an equivalent fraction in lowest terms.
2.  (b)  (c)  (d) 
3. Determine the greatest common factor (GCF) for each group of numbers.

 (a) 36, 54, 92 (b) 51, 66, 39 (c) 30, 45, 60

1. Determine the least common multiple (LCM) for each group of numbers.

(a) 15, 30 (b) 16, 20 (c) 12, 18, 42 (d) 4, 30, 36

AND WE FACTOR STUFF NOW ON THE BACK SIDE OF THIS!

**Factoring stuff…..**

1. Completely factor the following polynomials. (remember to reduce if possible)

a)  b)  c) 

d)  e)  f) 

g)  h)  i) 

1. Completely factor the following polynomials.

a)  b)  c) 

d)  e)  f) 

g)  h)  i) 

1. A rectangular prism has the volume as shown. Determine expressions for the dimensions of the rectangular prism. If x = 5 cm, calculate the dimensions and the volume of the prism.
2. Determine the binomials that represent the width and length of the rectangle shown. Then, calculate the dimensions if *x* = 12 cm.