**Notes on Prime Factorization**

**Prime Factorization results in a string of prime factors that are multiplied to get a product.**

We will learn an easy method for finding the Prime Factorization of a number. It is called the “Tree Method.”

Method 1: “Tree Method”

36

4

9

2

2

3

3

So……the prime factorization of 36 =(prime factor string)

You can also write the prime factorization in exponential form 2232

STEPS:

1. Split the number into 2 factors.
2. Continue to split factors until you have only prime factors left.
3. Draw “stop signs” around those prime factors.
4. Write those prime factors in a string.
5. When the prime factors are all multiplied together, they should give you the original product!

Find the prime factorization of the following numbers using trees:

1. 40 2. 18 3. 72