Lesson #1: Sep. 6 2014

Some prime numbers: 2,3,7

Prime numbers are divisible only by 1 and themselves

Definition of prime number: “p is prime if and only if p=rxs implies r=p or s=p”

A positive integer a is divisible by another positive integer c if and only if a=cxb where b is an integer

6 = 4 x (3/2). Since (3/2) is not an integer, 6 is not divisible by 4.

Prime factorization algorithm by example:

12894 = 2 x 6446

= 2 x 2 x 3223

= 2 x 2 x 3 x 11 x 293

This is the prime factorization (yes, 293 is a prime number!)

Since the prime factorization of 30 is:

30 = 2 x 3 x 5

the divisors of 30 (other than 1 and itself) are:

2

3

5

6 (since 6=2x3)

10 (since 10=2x5)

15 (since 15=3x5)