

Multiples and factors cheat sheet

Before we get started.

The difference between multiples and factors are what the words actually tell you to do.

Multiple tells you that you have to multiply.

Factor tells you that you have to divide.

The two basic functions that you will be performing will be called the GCF (greatest common factor) and the LCM (least common multiple).

Even though you are looking for the GREATEST common factor, your number will still be small since you are dividing.

Even though you are looking for the LEAST common multiple, your number will be large since you have to multiply.

Let's begin.

To find the GCF of 15, 70, and 100

I have to list all of the factors (numbers that divide into) 15, 70, 100

15---(1, 3, 5, 15)

70---(1, 2, 5, 7, 10, 14, 35, 70)

100--(1, 2, 4, 5, 10, 20, 25, 50, 100)

I can see that 5 is the largest number in all three sets of the factors. 5 must be the GCF.

To find the LCM we will do the same thing, we just list the *multiples* of a set of numbers and find the *smallest* number.

5---(5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60)

20--(20, 40, 60, 80)

30--(30, 60, 90)

I can see the *smallest* number between the three sets of numbers is 60. This is the LCM.