*Virtual Library Lesson: Greatest Common Factor and Least Common Multiple IQ-MS***Greatest Common Factor (gcf) And Least Common Multiple (lcm) By Manjit Singh Atwal**

**LCM and GCF**

There are many reasons which make math a hard and most hated subject among the average students. One of the most important reasons is the insufficient knowledge of basic math concepts such as least common multiple (lcm) and greatest common factor (gcf). Many students don't care about these basic concepts when there is a right time to learn these basic math skills. After reading this article students who lack the knowledge of least common multiple and greatest common factor, can better understand these skills and they can apply this knowledge in higher math concepts, such as solving fractions or algebraic expressions.

Least Common Multiple (LCM): If students know the times tables, then they can find multiples of a number quite easily as multiples are the "times" of the given number. To find least common multiple of two numbers students have to find multiples of both numbers and pick a common multiple which is the smallest of all. That smallest common multiple of both numbers is called the least common multiple.

For example; consider we want to find "lcm" of numbers "6" and "8". To find "lcm" of these number write the first 5 multiples of both the numbers as shown below:

6 = 6, 12, 18, 24, 30

8 = 8, 16, 24, 32, 40

Now by looking at first five multiples of both the numbers, we can locate the lcm for both, which is "24". There is no other multiple smaller than 24, which is common for both the given numbers.

Hence, "24" is the "lcm" of "6" and "8".

Sometimes there is no common multiple in first five multiples of both the numbers, in this case write the next five multiples to locate the least common multiple.

Greatest Common Factor (gcf): Similar to the "lcm", greatest common factor is another key skill students need to understand from the core. To find the greatest common factor of two numbers students need to find all the factors of both the numbers and then the biggest common factor is called the greatest common factor or gcf.

For example; consider we want to find the gcf of numbers "12" and "32". To find the gcf of the given numbers write all the factors of given numbers as shown below:

12 = 1, 2, 3, 4, 6, 12

32 = 1, 2, 4, 8, 16, 32

By looking at all the factors of both the numbers, it is clear that number "4" is the greatest common factor for the given numbers "12" and "32".

Article Source: <http://EzineArticles.com/?expert=Manjit_Singh_Atwal>

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