



GREATEST COMMON
FACTOR
AND
LEAST COMMON MULTIPLE



GREATEST COMMON FACTOR

❖ Also known as _____

❖ The largest number that divides evenly into two or more numbers.

❖ Used when _____

GREATEST COMMON FACTOR (GCF)

The Greatest Common Factor (GCF) is a number that divides evenly into all the numbers you are given in a problem. The GCF is used for **simplifying fractions**.

For example, the GCF of 16 and 12 is 4.

$$\begin{array}{r} 2 \overline{) 3 \ 4} \end{array}$$

$$\begin{array}{r} 2 \overline{) 12 \ 16} \end{array}$$

$$\begin{array}{r} 2 \overline{) 6 \ 8} \end{array}$$

$$\begin{array}{r} 2 \overline{) 3 \ 2} \end{array}$$

$$\begin{array}{r} 3 \overline{) 3 \ 1} \end{array}$$

$$\begin{array}{r} 1 \ 1 \end{array}$$

When the numbers stop having factors in common, you have found the **GCF**. When each number has been divided down to 1, you have found the **LCM**.

LEAST COMMON MULTIPLE

❖ The least common multiple of the _____ of two or more fractions.

❖ Ex: $\frac{4}{8}$ and $\frac{5}{6}$

❖ Multiples of 8:

❖ Multiples of 6:



LEAST COMMON MULTIPLES (LCM)

A multiple of any number is the product of that number and another factor. When adding or subtracting fractions, the LCM is called the **Least Common Denominator (LCD)**.

Example:

The first four multiples of five are:
5, 10, 15, 20

To find the Least Common Multiple (LCM) between two or more numbers, you must use
prime factorization.