

Greatest Common Factor

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

1. Find a factor tree for 136 and write down the prime factorization of 136.

Definition Fundamental Theorem of Arithmetic *Every composite whole number can be expressed as the produce of primes in exactly the same way, except for the order of the factors in the product.*

2. Find a factor tree for 92 and write down the prime factorization of 92.

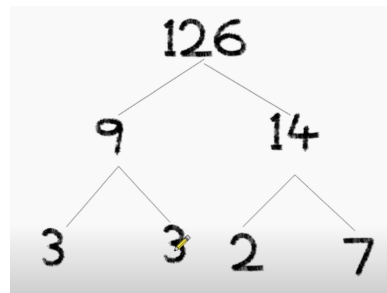
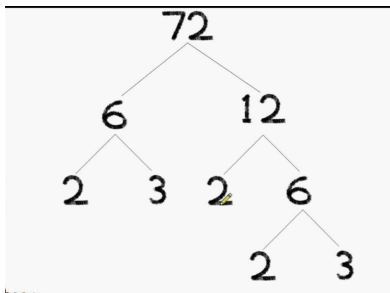
Definition Greatest Common Factor (GCF) or Greatest Common Divisor (GCD)
The GCF or GCD of two whole numbers n and m is the largest number that is a factor of n AND m , denoted $GCF(n, m)$ or $GCD(n, m)$.

3. Find the $GCD(92, 136)$.

Least Common Multiple

4. Find the $LCM(92, 136)$

5. Consider the factor trees for 72 and 126 (from BodhaGuru Learning "Math - Prime Factorization") given below.



(a) Find a number b so that $b|72$ and b is a factor of 126.

(b) Find $GCD(72, 126)$.

(c) Find $LCM(72, 126)$.