



Common Factors and Common Multiples

1. Common Factors

Common factors are numbers that are factors of two or more numbers.

A factor is a number that divides another number exactly (without remainder).

Example: Find common factors of 12 and 18

- **Factors of 12:** 1, 2, 3, 4, 6, 12
- **Factors of 18:** 1, 2, 3, 6, 9, 18
- **Common factors:** 1, 2, 3, 6

Highest Common Factor (HCF) of 12 and 18 = 6

2. Common Multiples:

Common multiples are numbers that are multiples of two or more numbers.

A multiple is a number that comes in a multiplication table of another number.

Example: Find common multiples of 4 and 6

- **Multiples of 4:** 4, 8, 12, 16, 20, 24, 28, 32, ...
- **Multiples of 6:** 6, 12, 18, 24, 30, 36, ...
- **Common multiples:** 12, 24, 36, ...

Least Common Multiple (LCM) of 4 and 6 = 12

3. Properties of Common Factors and Common Multiples

Properties of Common Factors:

- 1 is a factor of every number.
- The HCF is always smaller than or equal to the given numbers.
- If two numbers have only 1 as a common factor, they are called co-prime numbers.

Properties of Common Multiples:

- Every number is a multiple of itself.
- The LCM is always equal to or greater than the given numbers.
- If two numbers have no common multiples except their product, they are co-prime numbers.