Common Multiples and Least Common Multiple

Understanding Common Multiples

- Common multiples are numbers that are multiples of two or more numbers.
- These numbers appear in the multiplication tables of all the given numbers.
- Common multiples help in finding time intervals and solving real-life problems.

Understanding Least Common Multiple (LCM)

- The Least Common Multiple (LCM) is the smallest number that is a multiple of two or more numbers
- It is the first number that appears in all the multiplication lists
- LCM is useful when we want to make things equal or find the same timing for events

Steps to Find LCM

- **Step 1:** Write the first few multiples of each number
- **Step 2:** Find the common multiples
- **Step 3:** Choose the smallest common one — that's the LCM

Examples with Solutions

Example: Find the common multiples of 3 and 4

Multiples of 3 = 3, 6, 9, 12, 15, 18

Multiples of 4 = 4, 8, 12, 16, 20

Common multiples = 12

LCM = 12

Example: Find the LCM of 2 and 5

Multiples of 2 = 2, 4, 6, 8, 10, 12

Multiples of 5 = 5, 10, 15

Common multiples = 10

LCM = 10

Example: Find the LCM of 6 and 8

Multiples of 6 = 6, 12, 18, 24, 30, 36

Multiples of 8 = 8, 16, 24, 32

Common multiples = 24

LCM = 24

Example: Find the common multiples of 5 and 10

Multiples of 5 = 5, 10, 15, 20, 25

Multiples of 10 = 10, 20, 30

Common multiples = 10, 20

LCM = 10

Example: Find the LCM of 3 and 7

Multiples of 3 = 3, 6, 9, 12, 15, 18, 21

Multiples of 7 = 7, 14, 21, 28

Common multiples = 21

LCM = 21

Summary Points

- Common multiples are numbers that are in the tables of two or more numbers.
- The smallest of the common multiples is called the LCM.
- LCM helps in solving problems related to equal timing or quantity.
- Use multiplication tables to find LCM easily.
- Practice makes it faster and easier to find LCM without mistakes.