Properties of Multiples

A multiple is the result of multiplying a number by a whole number (integer). For example, multiples of 3 are 3, 6, 9, 12, 15, etc. Multiples have certain properties that help us understand how they behave in different situations.

Properties of Multiples

Multiples are always greater than or equal to the number:

The first multiple of any number is the number itself. For example, the multiples of 5 are 5, 10, 15, 20, etc.

Multiples of a number are infinite:

You can keep multiplying a number by whole numbers and get endless multiples. For example, the multiples of 7 are 7, 14, 21, 28, 35, etc., and there is no end.

Multiples of a number are divisible by that number:

Every multiple of a number can be evenly divided by that number. For example, 30 is a multiple of 5, and when we divide 30 by 5, we get 6, which is a whole number.

Multiples of a number have the same last digit or pattern in some cases:

For example, multiples of 5 end in either 0 or 5, and multiples of 10 always end in 0.

The common multiple of two numbers is a multiple of both numbers:

For example, 30 is a common multiple of both 5 and 6, since it can be divided evenly by both 5 and 6.

Example 1

Question: What are the first 4 multiples of 6?

Solution: The multiples of 6 are:

6 × 1 = 6

6 × 2 = 12

6 × 3 = 18

6 × 4 = 24

So, the first 4 multiples of 6 are: 6, 12, 18, 24

Answer: The first 4 multiples of 6 are 6, 12, 18, 24

Example 2

Question: What are the first 5 multiples of 8?

Solution: The multiples of 8 are:

8 × 1 = 8

8 × 2 = 16

8 × 3 = 24

8 × 4 = 32

8 × 5 = 40

So, the first 5 multiples of 8 are: 8, 16, 24, 32, 40

Answer: The first 5 multiples of 8 are 8, 16, 24, 32, 40

Summary Points

- Multiples are numbers that result from multiplying a number by whole numbers.
- Multiples are infinite and can go on forever.
- They are always greater than or equal to the number itself.
- Multiples of a number are divisible by that number.
- The common multiple of two numbers is a multiple of both numbers.