More about Factors

- The factor of a number is always less than or equal to the number.
- Every number is the greatest factor of itself
- 1 is the smallest factor of every number.

We can find factors of a number by Multiplication and Division both:

Finding Factors by Multiplication

Let us take an example to understand this.

Example: Find the factor of 36 using multiplication

Solution: 1 × 36 = 36, so 1 and 36 are factors of 36

2 × 18 = 36, so 2 and 18 are factors of 36

3 × 12 = 36, so 3 and 12 are factors of 36

4 × 9 = 36, so 4 and 9 are factors of 36

5 × ? = 36 there is no number that when multiplied by 5 gives 36.

6 × 6 = 36 so 6 is a factor of 36

7 × ? = 36

8 × ? = 36

9× 4 = 36

- There is no number that multiplied by 7 or 8 gives 36
- There is no need to calculate further as 9 and 4 already factors of 36.

Hence factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18, and 36

Finding Factors by Division

Let us take an example to understand this.

Example: Find the factor of 36 using division.

Solution: 36 ÷ 1 = 36, so 1 and 36 are factors of 36

36 ÷ 2 = 18, so 2 and 18 are factors of 36

36 ÷ 4 = 9, so 4 and 9 are factors of 36

36 ÷ 5 = 7 and Remainder = 1, so 5 is not a factor of 36

36 ÷ 6 = 6, so 6 is a factor of 36

36 ÷ 7 = 5 and Remainder =1, so 7 is not a factor of 36

36 ÷ 8 = 4 and Remainder =4, so 8 is not a factor of 36

36 ÷ 12 = 3, so 3 and 12 are factors of 36

No need to divide further as 9 is already a factor of 36

Hence 1, 2, 3, 4, 6, 9, 12, 18, and 36 are factors of 36