Pragyan

FACTORS

Factors are the numbers that divide another number exactly without leaving any remainder.

Examples

1. Factors of 12

1, 2, 3, 4, 6, 12

- 12 ÷ 1 = 12
- 12 ÷ 2 = 6
- 12 ÷ 3 = 4
- 12 ÷ 4 = 3
- 12 ÷ 6 = 2
- 12 ÷ 12 = 1

So, the factors of 12 are 1, 2, 3, 4, 6 and 12.

2. Factors of 18

1, 2, 3, 6, 9, 18

- 18 ÷ 1 = 18
- 18 ÷ 2 = 9
- 18 ÷ 3 = 6
- 18 ÷ 6 = 3
- 18 ÷ 9 = 2
- 18 ÷ 18 = 1

So, the factors of 18 are 1, 2, 3, 6, 9 and 18.

How to find factors?

1. Divide the number by 1.
2. Then divide by 2, 3, 4 ... and so on.
3. If the division is exact (remainder is 0), then the number is a factor.

Example: Is 5 a factor of 20?

20 ÷ 5 = 4 (remainder 0)

So, 5 is a factor of 20.

Factor Pairs

Factor pairs of 12:
(1, 12), (2, 6), (3, 4)

Factor pairs of 18:
(1, 18), (2, 9), (3, 6)

Points to remember

- 1 is a factor of every number.
- Every number is a factor of itself.
- Factors always come in pairs.
- Factors of a number are always less than or equal to the number.
- 0 is not a factor of any number (because division by 0 is not possible).

Smallest factor of any number is **1**.

Greatest factor of any number is the **number itself**.

Try these!

Find all the factors:

1. 8
2. 15
3. 20