

Factors [Pt. I]

CATEGORY: *Numbers*

Introduction: *What are factors?*

Factors are numbers that you multiply together to get an answer.

So when you multiply **two numbers** together, they then become **factors** of the answer (**product**.)

E.g. **2 x 6 = 12**

(**factors**) = (**product**)

2 and 6 are both factors of the number 12.

However, 12 will have more factors:

$$1 \times 12 = 12$$

$$2 \times 6 = 12$$

$$3 \times 4 = 12$$

Therefore, **1, 2, 3, 4, 6** and **12** are all factors of **12**.

Characteristics of Factors:

- A number divided by its factor won't have a remainder.
- They're whole numbers.
- 1 is the smallest factor for each product.
- Each product has at least 2 factors, 1 and itself.

A number that only has the factors 1, and itself, is called a *prime number*.

Therefore a prime number can only be divided by 1, and by itself, and no other whole numbers.

This will lead us into part II of factorizing, "What is Prime Factorization."

If you would like to jump ahead, part III covers, "How & why do we use factorization?"

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