

0.1 Divisors and Greatest Common Divisors (GCD)

0.1.1 Divisors

The divisors d of a natural number n are the natural numbers such that $\frac{n}{d} \in \mathbb{N}$.

For example, for 6 the divisors are 1, 2, 3, 6.

Divisors cannot be bigger than the number they are dividing.

0.1.2 Universal divisors

For any number $n \in \mathbb{N}^+$:

$$\frac{n}{n} = 1$$

$$\frac{n}{1} = n$$

Both 1 and n are divisors.

0.1.3 Common divisors

A common divisor is a number which is a divisor to two supplied numbers.

0.1.4 Greatest common divisor

The greatest common divisor of 2 numbers is as the name suggests.

So $GCD(18, 24) = 6$