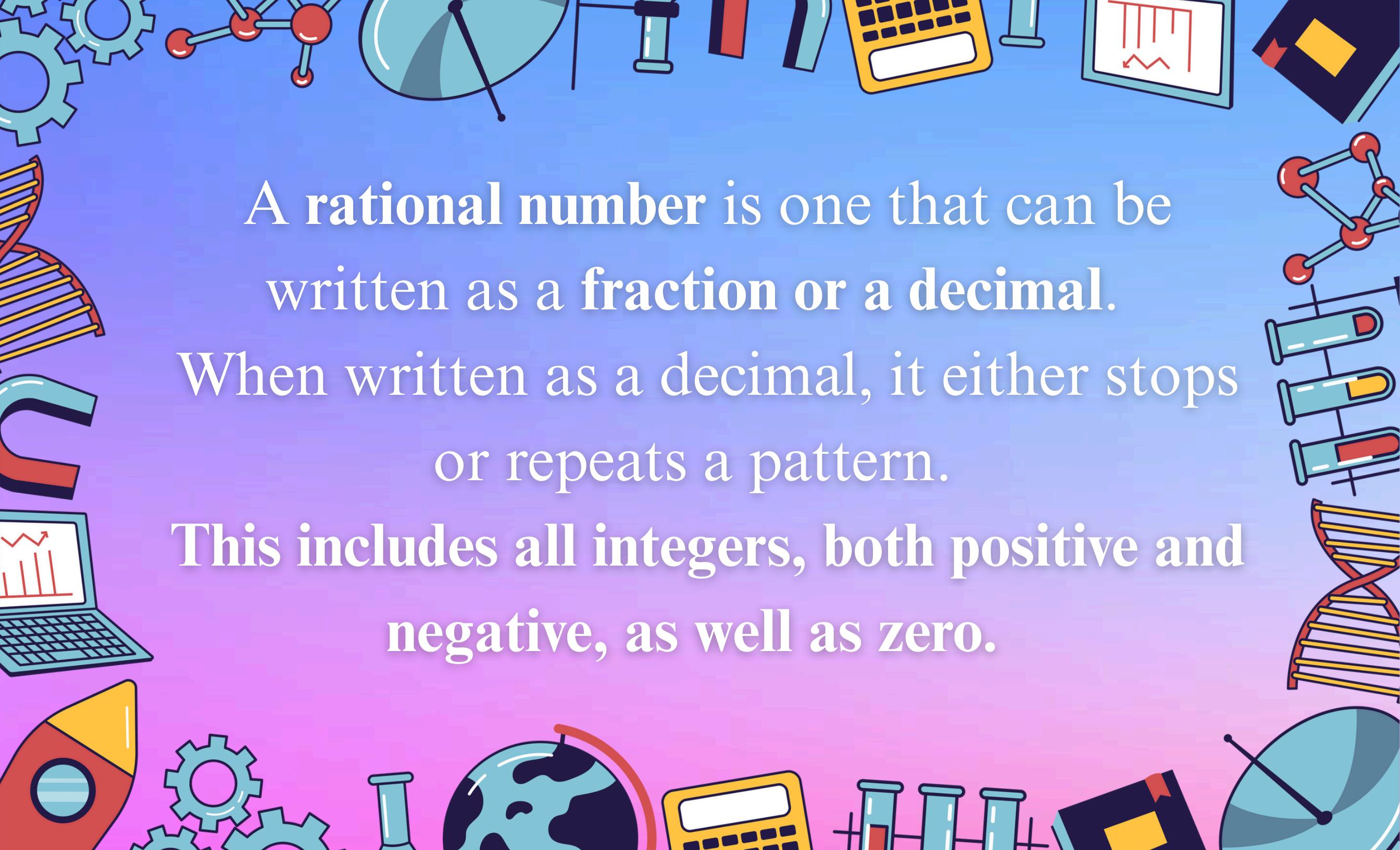


# Rational and Irrational Number



A rational number is one that can be written as a **fraction** or a decimal.

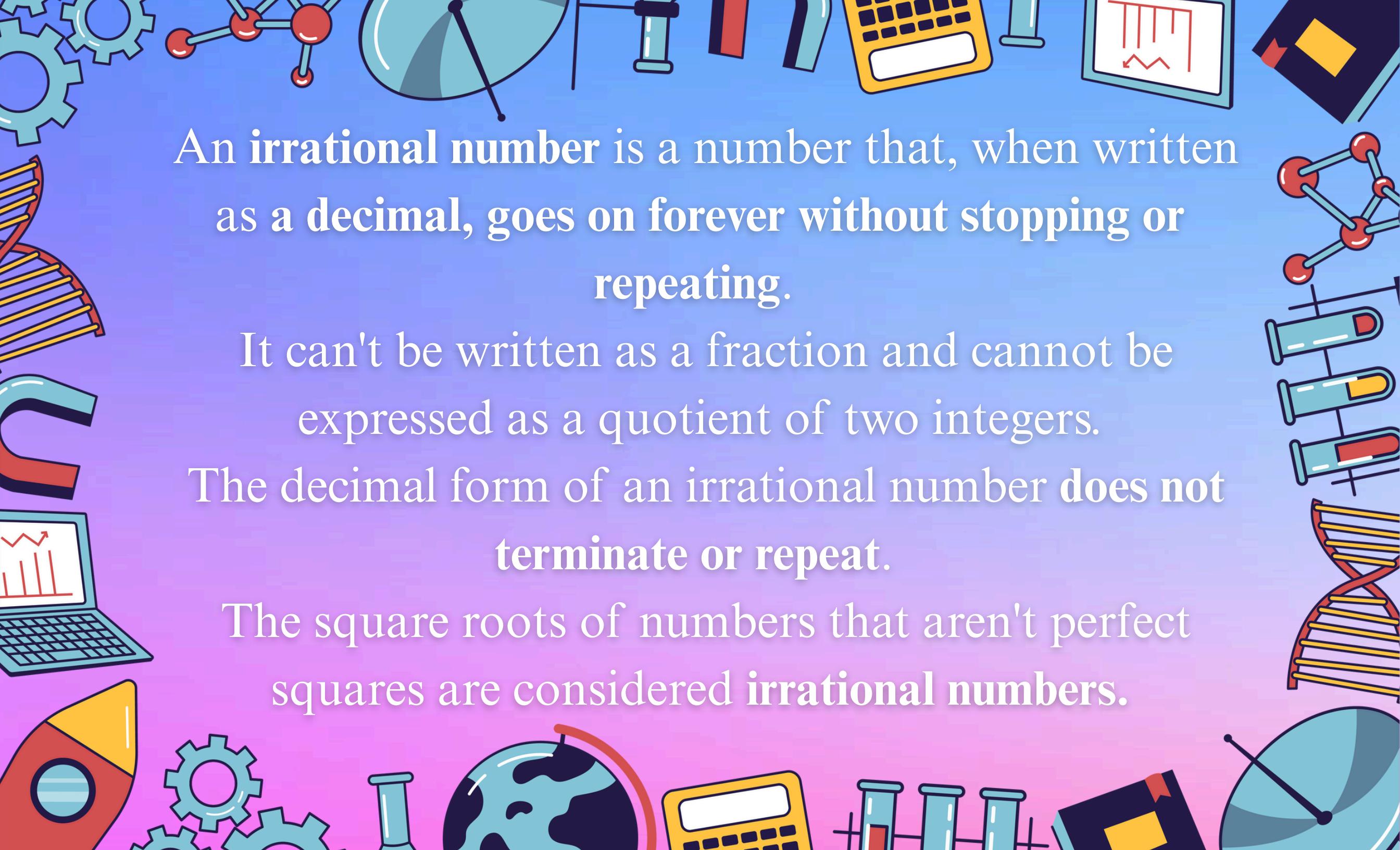
When written as a decimal, it either stops or repeats a pattern.

This includes all integers, both positive and negative, as well as zero.

# Rational Number

Examples are:

-3, -2, -1, 0, 2, 1, 1.111, 2,  
3.333...



An **irrational number** is a number that, when written as a decimal, goes on forever without stopping or repeating.

It can't be written as a fraction and cannot be expressed as a quotient of two integers.

The decimal form of an irrational number does not terminate or repeat.

The square roots of numbers that aren't perfect squares are considered **irrational numbers**.

# Irrational Number

Examples are:

$$\sqrt{2}, \sqrt{3}, \sqrt{5}$$