

THE REAL NUMBER SYSTEM

Classification Reference Chart

Rational Numbers (Q)

- Can be expressed as a fraction p/q
- Terminating decimals
- Repeating decimals
- Includes Integers (...-1, 0, 1...)
- Includes Whole Numbers (0, 1, 2...)
- Includes Natural Numbers (1, 2, 3...)

Examples: $1/2$, 0.75 , -5 , $0.333\dots$, 2^{16}

Irrational Numbers (P)

- Cannot be expressed as a simple fraction
- Non-terminating decimals
- Non-repeating decimals
- Square roots of non-perfect squares
- Mathematical constants

Examples: π , $2^{1/2}$, $7^{1/2}$, $1.41421\dots$, e

Note: All Rational and Irrational numbers combined make up the set of **Real Numbers (R)**.