

IRRATIONAL NUMBERS REFERENCE CHART

Middle School Mathematics

What is an Irrational Number?

A number that cannot be written as a simple fraction. Its decimal form goes on forever without repeating a pattern.

Pi (Circle Ratio)	π	3.14159...
Square Root of 2	$\sqrt{2}$	1.41421...
Square Root of 3	$\sqrt{3}$	1.73205...
Square Root of 5	$\sqrt{5}$	2.23606...
Golden Ratio	ϕ	1.61803...

How to Spot Them:

- Non-terminating (never ends)
- Non-repeating (no pattern)
- Square roots of non-perfect squares

Common Mistakes:

- $\frac{22}{7}$ is Rational (an approximation)
- $\sqrt{9}$ is Rational (equals 3)

- $0.333\dots$ is Rational ($1/3$)