

# IRRATIONAL NUMBERS

## Mathematical Reference Chart

**Definition:** A real number that cannot be expressed as a simple fraction (ratio). Its decimal form never ends and never repeats a pattern.

| SYMBOL | NAME                 | APPROXIMATE<br>VALUE (Â‰^) | KEY PROPERTY                               |
|--------|----------------------|----------------------------|--------------------------------------------|
| ï€     | Pi                   | 3.14159...                 | Ratio of circle circumference to diameter. |
| e      | Euler's Number       | 2.71828...                 | Base of natural logarithms.                |
| ï†     | Golden Ratio         | 1.61803...                 | Often found in nature and art.             |
| â~2    | Pythagoras' Constant | 1.41421...                 | Length of a unit square's diagonal.        |
| â~3    | Theodorus' Constant  | 1.73205...                 | Height of an equilateral triangle.         |
| â~5    | Root Five            | 2.23606...                 | Used in calculating the Golden Ratio.      |