

# Place Value & Rounding Chart

Understand place value from millions to thousandths, and master rounding rules for whole numbers and decimals.

Place	Value	Example: 3,456,789.123
Millions	1,000,000	3
Hundred Thousands	100,000	4
Ten Thousands	10,000	5
Thousands	1,000	6
Hundreds	100	7
Tens	10	8
Ones	1	9
Tenths	0.1	1
Hundredths	0.01	2
Thousandths	0.001	3

## Rounding Rules

**Step 1:** Find the digit in the place you are rounding to

**Step 2:** Look at the digit to its right

**If 0-4:** Round down (keep the digit the same)

**If 5-9:** Round up (increase the digit by 1)

**Step 3:** Replace all digits to the right with zeros (whole numbers) or drop them (decimals)

## Rounding Examples

**3,847 to nearest 10:** 3,850

**3,847 to nearest 100:** 3,800

**3,847 to nearest 1000:** 4,000

**6.274 to nearest tenth:** 6.3

**6.274 to nearest hundredth:** 6.27

**14.985 to nearest tenth:** 15.0

## Estimating with Rounding

**Purpose:** Get a quick approximate answer

**Method:** Round each number first, then calculate

**Example:**  $487 + 312$  is approximately  $500 + 300 = 800$   
(actual: 799)

**Example:**  $38 \times 21$  is approximately  $40 \times 20 = 800$   
(actual: 798)

## Scientific Notation Basics

**Form:**  $a \times 10^n$  where  $1 \leq a < 10$

**Large numbers:** Move decimal left, positive exponent

**Example:**  $45,000 = 4.5 \times 10^4$

**Small numbers:** Move decimal right, negative exponent

**Example:**  $0.0032 = 3.2 \times 10^{-3}$

When rounding, always underline the place value digit and circle the digit to its right. This helps avoid mistakes.