

# Significant Figures

Physics

Carrying the right precision through a calculation.

**Round the final answer to the significant figures of the least precise input.**

**Multiply/divide: fewest sig figs • Add/subtract: fewest decimal places**

$$2.5 \times 3.42$$

Two sig figs.

**8.6**

$$12.11 + 3.2$$

One decimal place.

**15.3**

**Constants**

**Treated as exact**

## THE COMMON MISTAKE

✗ **Rounding at every intermediate step**

✓ **Rounding once, at the end**

Intermediate rounding accumulates. Keep full precision through the working and round only the final answer.

Trailing zeros are ambiguous in plain decimal. Standard form removes the ambiguity:  $1.20 \times 10^3$  is clearly three figures.