# Rules for Significant Figures and Precision in Chemistry Calculations

## 1. Addition and Subtraction

When adding or subtracting, the final answer is rounded to match the number of **decimal places** of the number in the calculation with the **fewest decimal places**.

**Example:**
100.29 – 2.343 – 72.9 = 25.047 → Rounded to 1 decimal place → **25.0**

## 2. Multiplication and Division

When multiplying or dividing, the final answer is rounded to have the same number of **significant figures** as the measurement with the **fewest significant figures**.

**Example:**
4.56 × 1.4 = 6.384 → 2 significant figures → **6.4**

## 3. Rounding Advice

**Always perform all intermediate calculations first** (keep extra digits in your calculator). Round only at the very end to avoid introducing rounding errors.

**Tip:** Underline the number in your intermediate result that determines your rounding.

| Operation | Rule |
|---|---|
| Addition / Subtraction | Match decimal places to least precise measurement |
| Multiplication / Division | Match significant figures to least precise measurement |