Significant Figures

To indicate precision in measurement, the recorded value should reflect all the digits with known certainty plus one estimated digit. All the digits in numbers recorded in this way are considered significant.

Familiarizing yourself with the following rules will help you choose the correct number of significant figures in various situations.

1. All nonzero digits are significant

4.5	2 SF
122.35	5 SF
256.7	4 SF

2. Zeroes between nonzero digits are significant

205	3 SF
80097	5 SF
5.80308	6 SF

3. Zeroes at the end of numbers with decimals are significant

50.	2 SF
51.00	4 SF
502.30	5 SF

4. All digits in the coefficient of scientific notation are significant

3.5×10^5	2 SF
5.70×10^2	3 SF
3.008×10^6	4 SF

5. Zeroes at the beginning of a decimal are NOT significant

0.000505	3 SF
0.000004	1 SF
0.075	2 SF

5. Zeroes used as placeholders in large numbers without decimals are NOT significant

850,000	2 SF
6500	2 SF
1,250,000	3 SF

ADDITION/SUBTRACTION: **the answer can contain no more decimal places than the least accurate measurement.**

MULTIPLICATION/DIVISION: **the answer can contain no more significant figures than the least accurate measurement.**