<u>Operations with Significant Figures</u>

* Always try to round off at the end of a calculation.

1. <u>Addition/Subtraction</u>

(round to the least accurate place value)

e.g. 2.2 m + 6.35 m = 8.55 =8.6 m

The sum cannot be more accurate than the least accurate measurement involved (smallest amount of decimals).

2. <u>Multiplication/Division</u> / Exponents.

The answer carries the least number of significant digits used in the calculation.

e.g. 41.25 m x 6.43 m = 265.2375 m^2 =265 m^2

(4) (3) (3)

The only "exact" quantities are numbers that are obtained by counting or by definition.

i.e. # days in week 1 dozen = 12 units

100 cm = 1 m 1 mole = 6.022×10^{23}

Example:

$12.0 - 37.888 + 61$

$= 35.112$

$\simeq 35$

Example:

$75/0.0005 = 150000$

$\simeq 200000 \simeq 2 \times 10^5$