## Rules of Significant Figures

1. All digits 1-9 inclusive are significant

– Example – 129 = 3 sig figs

2. Zeros between sig figs digits are always significant

– Example – 5,007 = 4 significant figures

3. Trailing zeros in a number are significant ONLY if the number contains a decimal point

– Example – 100.0 = 4 sig figs

– Example – 100 has 1 sig fig

4. Zeros in the beginning of a number whose only function is to place the number are not significant

- Example – 0.0025 – has 2 sig figs

5. Zeros following a decimal significant figure are significant

- Example – 0.000470 = 3 sig figs

- Example - .47000 = 5 significant figures

## Calculating using Significant Figures

When multiplying and dividing – limit and round the least number of sig figs of any of the factors

Example

23.0 cm x 432 cm x 19 cm = 188,784 cm3

The least amount of sig figs is 19 therefore

The answer is 190,000 cm3

Calculating Sig Figs

When adding and subtracting, limit and round your answer to the least number of decimal places in any of the numbers that make up your answer

123.25 mL + 46.0 mL + 86.257 mL =

46.0 mL has only one decimal place

255.5 mL is the answer


## Rules of Significant Figures

1. All digits 1-9 inclusive are significant

– Example – 129 = 3 sig figs

2. Zeros between sig figs digits are always significant

– Example – 5,007 = 4 significant figures

3. Trailing zeros in a number are significant ONLY if the number contains a decimal point

– Example – 100.0 = 4 sig figs

– Example – 100 has 1 sig fig

4. Zeros in the beginning of a number whose only function is to place the number are not significant

- Example – 0.0025 – has 2 sig figs

5. Zeros following a decimal significant figure are significant

- Example – 0.000470 = 3 sig figs

- Example - .47000 = 5 significant figures

## Calculating using Significant Figures

When multiplying and dividing – limit and round the least number of sig figs of any of the factors

Example

23.0 cm x 432 cm x 19 cm = 188,784 cm3

The least amount of sig figs is 19 therefore

The answer is 190,000 cm3

Calculating Sig Figs

When adding and subtracting, limit and round your answer to the least number of decimal places in any of the numbers that make up your answer

123.25 mL + 46.0 mL + 86.257 mL =

46.0 mL has only one decimal place

255.5 mL is the answer