

## ROUNDING OFF-SIGNIFICANT FIGURES/DECIMAL PLACES

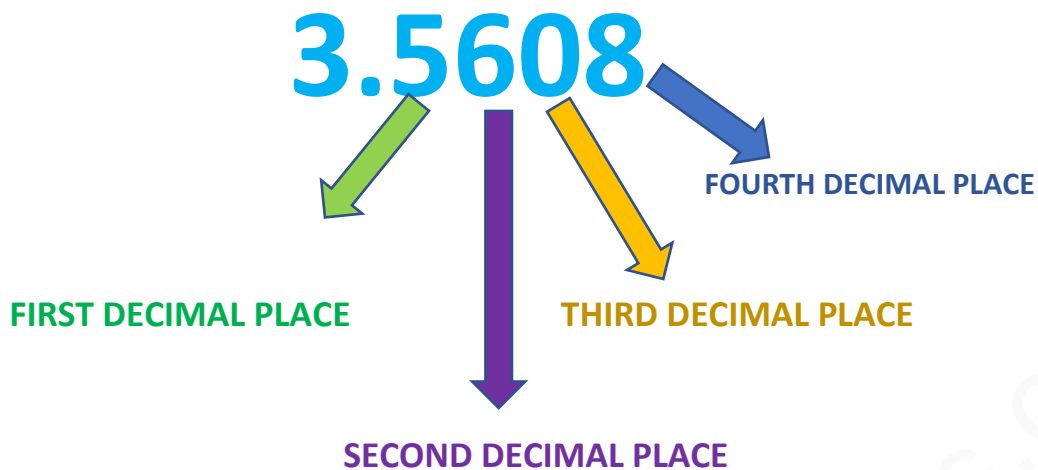
### SIGNIFICANT RULES SUMMARISED

Value	Number of significant figures	Rule for counting significant figures
23.55	4	All non-zero digits are significant
0.038	2	All zeros before a non-zero digits are insignificant
9.012	4	Sandwiched zeros are significant
600.56	5	Another example of sandwiched zeros that are all significant
0.0090070	5	All zeros before non-zero digits are insignificant. The sandwiched zeros and the zeros following a non-zero digits are all significant
60.0	3	All zeros following the non-zero digits are significant

If a number has to be quoted to a desired number of significant figures, then look at the next figure after the last one that we wish to quote. If this figure is 5 or greater than 5, we round up, else we round down.

Example:

- Rounding 0.38 to 1 significant figure will give us the number 0.4. The reason being the number after 3 is greater than 5, so we round 3 up to 4.
- In the case of 9.012, rounding it to 3 significant figures, we get 9.01 as our answer. This is because the number to the right of 1 is 2 and 2 is less than 5. Hence we down the number to 9.01.



If a number has to be rounded to a desired number of decimal places, then look at the next figure after the last one that we wish to round off. If this figure is 5 or greater than 5, we round up, else we round down.

Example:

- Rounding 1.38 to 1 decimal place will give us the number 1.4. The reason being the number after 3 is greater than 5, so we round 3 up to 4.
- In the case of 9.012, rounding it to 2 decimal places, we get 9.01 as our answer. This is because the number to the right of 1 is 2 and 2 is less than 5. Hence we down the number to 9.01.
- Rounding 3.5608 to 1 dp (decimal place) gives us 3.6
- Rounding 3.5608 to 2 dp gives us 3.56