

1 Superscripts

Use the `^` character - this raises the character (or group) immediately following the `^`:

e.g. The statement `$A = \pi D^2 / 4$` produces $A = \pi D^2 / 4$.

Superscripts need to be in mathematics mode. i.e., you cannot just write `Alien^3`, you would have to write `Alien3` which gives Alien^3 .

2 Subscripts

For subscripts, use the `_` character:

e.g. The statement `L_2 norm` produces L_2 norm.

3 Mixing sub- and superscripts

You often need to mix sub- and superscripts. They can be combined with `{` and `}` characters to achieve many effects.

3.1 Multiple sub- or superscripts

Note the difference in appearance depending on how you use your bracketing.

e.g.1., Typing `${C_D}_x$` produces C_{Dx} .

e.g.2., Typing `${A^B}^{C^D}{}^E$` produces A^{BCDE} .

Whereas:

e.g.3., Typing `C_{D_x}` produces C_{D_x} .

e.g.4., Typing `$A^{B^{C^{D^E}}}$` produces A^{BCDE} .

Here the latter is preferred, as the correct size reductions of each successive script level is achieved.

3.2 Combining sub- and superscripts

Here things get interesting. You can vary alignment of scripts to suit your needs. Observe the differences between the following:

`A_R^2` produces A_R^2 .

`${A_R}^2$` produces A_R^2 .

`$(A^2)_R$` produces A^2_R .

`A_{R^2}` produces A_{R^2} .

`A^{2_R}` produces A^{2_R} .

You can also use an “empty group” $\{\}$ to permit horizontal ordering of scripts:

e.g. $\$A^{\{u\}}_{\{v\}}^{\{wxy\}}_{\{z\}}\$$ produces $A^u_v{}^{wxy}_z$.