

Inline math notation is done this way: $(x + 4)$
Double back slash is a line-break....

Display math mode is don with double dollar signs

$$y = a + bx$$

Superscripts: $2x^3$

In superscripts only the first character will be scripted unless they are put into parentheses.

$$2x^{34+t}$$

Subscripts use underscore: x_2 and x_{12} and x_{122}

Greek letters: Use backslash and spell out the name, A-L-E-X-A-N-D-E-R

We are meant to be $A = \pi r^2$

Trig is this: $\sin(x)$, $\cos(x)$, $\tan(x)$

Logs: $\log_a b$, and $\ln x$

Roots: $\sqrt{2}$ and $\sqrt[3]{5}$ and $\sqrt{1 + \sqrt{x}}$

Fractions: $\frac{x + 4}{x^2}$ and

$$\frac{x + 4}{x^2}$$