Here is some basic inline maths notation of $(x+1)$ and $(x+3)$.
And here is an equation in maths display mode:

$$A = x^2 + 4x + 3$$

Superscripts:

$$2x^3$$
$$2x^{34}$$
$$2x^{3x+4}$$
$$2x^{3x^4+5}$$

Subscripts:

$$x_1$$
$$x_{12}$$
$$x_{123}$$

Greek letters:

$$\pi$$
$$\alpha$$
$$A = \pi r^2$$

Log functions:

$$\log_5 x$$
$$\ln x$$

Square roots:

$$\sqrt{2}$$
$$\sqrt[3]{2}$$
$$\sqrt{x^2 + y^2}$$
$$\sqrt{1 + \sqrt{x}}$$

Fractions:
About $\frac{2}{3}$ of the glass is full.
About $\dfrac{2}{3}$ of the glass is full.

$$\frac{x}{x^2 + x + 1}$$

$$\frac{\dfrac{\sqrt{x+1}}{\sqrt{x-1}}}{\dfrac{1}{1+\frac{1}{x}}}{\sqrt{\dfrac{x}{x^2+x+1}}}$$