superscript:

$$2x^3$$

$$2x^{34}$$

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

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

subscript:

$$x_1$$

$$x_{12}$$

$$x_{123}$$

$$x_{123}$$

supersubscript:

$$x_{12}^2$$

greek letters:

$$\pi$$

$$\alpha$$

$$\theta$$

trig functions:

$$\sin x$$

log functions:

$$\log_3 x$$

$$\ln x$$

square roots:

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

$$\sqrt[4]{\sqrt{x + 2}}$$