Hello this is my first document

a new rectangle has sides $(x+1)$ and $(x+3)$. The equation

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

gives the area of he rectangle.

superscripts

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

subscripts

$$x_1$$
$$x_{12}$$
$$a_1, a_2, a_3, \ldots, a_{100}$$

greek

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

trig

$$y = \sin x$$
$$y = \cos x$$
$$y = \csc \theta$$
$$y = \sin^{-1} x$$

log

$$y = \log x$$
$$y = \log_5 x$$
$$y = \ln x$$

root

$$\sqrt{2}$$
$$\sqrt[3]{9}$$
$$\sqrt{x^2 + y^2}$$

fractions

$$\frac{2}{3}$$

about $\frac{2}{3}$ of the glass is full

about $\dfrac{2}{3}$ of the glass is full