$$2x^3$$

$$2x^{23}$$

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

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

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

subscript:

$$x_1$$

$$x_{11}$$

$$x_{13}$$

Greek letters:

$$\pi$$

$$\alpha$$

$$A=\pi r^2$$

trig functions:

$$y = \sin x$$

 \log function

$$\log_5 x$$

$$\ln x$$

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

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

$$\frac{\sqrt{x+1}}{\sqrt{x-1}}$$

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

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