#### 1 Inline & display formula

Suppose we are given a rectangle with side length x and x+1, then the equation  $A=x^2+x$  represents the area of the rectangle.

Suppose we are given a rectangle with side length x and x + 1, then the equation  $A = x^2 + x$  represents the area of the rectangle.

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Suppose we are given a rectangle with side length x and x + 1, then the equation (1) represents the area of the rectangle.

$$A = x^2 + x \tag{1}$$

## 2 Superscripts

$$2x^3$$

$$2x^{34}$$

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

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

#### 3 Subscripts

 $x_1$ 

 $x_{12}$ 

 $x_{123}$ 

## 4 Greek letters

 $\alpha, \beta, \gamma, \theta$ 

# 5 Square root

$$\sqrt{2}$$

$$\sqrt[3]{2}$$

$$\sqrt{x^2 + y^2}$$

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

## 6 Fractions

In line fractions  $\frac{2}{3}$  and  $\frac{2}{3}$  .

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

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

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

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

# 7 Brackets

$$(x+1)$$

$$3[2+(x+1)]$$

$$\{a,b,c\}$$

$$3\left(\frac{2}{5}\right)$$

$$3\left[\frac{2}{5}\right]$$

$$3\left\{\frac{2}{5}\right\}$$

$$\left|\frac{x}{x+1}\right|$$

$$\left\{x^2$$

$$\frac{dy}{dx}\right|_{x=1}$$

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