# Insert Equation

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# 1 inline Equation

#### 1.1 dollar character

$$f(x) = x^2 + 3x$$

## 1.2 parenthesis

$$f(x) = x^2 + 3x$$

#### 1.3 mathematical environment

$$f(x) = x^2 + 3x$$

### 2 super/sub script

#### 2.1 superscript

$$f(x) = x^2 + 3y^{20}$$

#### 2.2 subscript

$$f(x) = x^2 + 3x_{20}$$

#### 3 greek alphabet

#### 3.1 lowercase

$$\alpha \beta \omega_1 \gamma \pi$$

#### 3.2 uppercase

$$\Gamma \Delta \Pi^5 \Omega \alpha^2 + \beta^3 = \omega$$

# 4 mathematical functions

$$\log_{10}^2 x \ \sin^2 x \ \cos^3 y \ \arcsin x \ \arccos z \ \ln x \ \sqrt{3x^2 + 2y_2^4} \ \sqrt[5]{3x}$$

# 5 algebraic fraction

$$3/4 \quad \frac{x}{y} \quad \frac{\sqrt{2y_2^5}}{\sqrt[6]{\sin^2 x + \arcsin z_4^2}}$$

## 6 equation between lines

use  $\$  insert equation

$$f(x) = 3x + y^3$$

#### 6.1 square brackets

use  $\setminus$  [equation... $\setminus$ ] insert equation

$$f(x) = 3x + y^3$$

#### 6.2 environment of displaymath

$$f(x) = 3x + y^3$$

# 6.3 environment where equation enumerated automatically

Refer the equation 1

$$f(x) = 3x + z^3 \tag{1}$$

## 6.4 environment where equation\* are not enumerated

Refer the equation 2

$$f(x) = 3x + z^6 \tag{2}$$