

# 1 Mathematical Equations

## 1.1 Mathematical Symbols

Some of the math symbols are

$$\alpha \quad \beta \quad \gamma \quad \delta \quad \Delta \quad \mu \quad \nu$$

Arithmetic Operations are

$$\leq \quad \ll \quad \gg \quad \pm \quad \times \quad \div \quad \neq$$

Different arrow mark symbols

$$\rightarrow \quad \Rightarrow \quad \longrightarrow \quad \Longrightarrow$$

## 1.2 Mathematical Equations

This formula  $f(x) = x^2$  is an example.

$$1 + 2 = 3$$

$$1 = 3 - 2$$

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$$1 = 3 - 2$$

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

$$g(x) = \frac{1}{x}$$

$$F(x) = \int_b^a \frac{1}{3} x^3$$

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

$$g(x) = \frac{1}{\sqrt{x}}$$

$$F(x) = \int_b^a \frac{1}{3} x^3$$

$$A_{m,n} = \begin{pmatrix} a_{1,1} & a_{1,2} & \cdots & a_{1,n} \\ a_{2,1} & a_{2,2} & \cdots & a_{2,n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m,1} & a_{m,2} & \cdots & a_{m,n} \end{pmatrix}$$

$$A = \begin{pmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{pmatrix}$$

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$$B = \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$$

$$\begin{matrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{matrix}$$

$$\begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{vmatrix}$$

$$\left\{ \begin{matrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{matrix} \right\}$$

$$\left\| \begin{matrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{matrix} \right\|$$

I love small matrice such  $\begin{pmatrix} a & b \\ c & d \end{pmatrix}$