

1 Mathematics Typing - Main Learning

1.1 1. Basic Math Modes

Inline math: $y = mx + c$

Display math:

$$y = mx + c$$

1.2 2. Superscripts and Subscripts

$$x^2, a_n, x_i^2, n_{k-1}^{m+1}$$

1.3 3. Greek Letters and Functions

$$\alpha, \beta, \theta, \Gamma, \sin \theta, \log x$$

1.4 4. Integration Example

$$\int_{-\infty}^{\infty} e^{-x^2} dx$$

1.5 5. Aligned Equations

$$a = b + c$$

$$x = y - z$$

$$Q_{n,k} = Q_{n-1,k} + Q_{n-1,k-1}$$

1.6 6. Numbered Equation and Matrices

$$e^{i\pi} + 1 = 0 \tag{1}$$

$$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$$

1.7 7. Math Fonts and Bold Math

Normal: ABC

Bold: **ABC**

Roman: ABC

Blackboard: \mathbb{R}

Bold Greek: **$\alpha + \beta$**