## **LATEX** Demo

Statistical Computing

March 3, 2020

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- 1 itemize and enumerate
- 2 array, pmatrix and cases
- 3 math mode
- 4 align
- 5 tabular and graphic

#### itemize and enumerate

By itemize,

- abc
- def
- ghi

By enumerate,

- abc
- def
- ghi

### array, pmatrix and cases

By array,

$$\left(\begin{array}{cccccccc}
1 & 2 & 3 & 1 & 2 & 3 \\
4 & 5 & 6 & 4 & 5 & 6 \\
7 & 8 & 9 & 7 & 8 & 9
\end{array}\right)$$

By pmatrix,

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

By array,

$$|x| = \begin{cases} x, & \text{if } x \ge 0 \\ -x, & \text{if } x < 0 \end{cases}$$

By cases,

$$|x| = \begin{cases} x, & \text{if } x \ge 0 \\ -x, & \text{if } x < 0 \end{cases}$$

#### math mode

- $\alpha, \beta, \gamma, \Gamma, \zeta, \eta, \sigma, \Sigma$
- $\bullet \lim_{x \to a} f(x)$
- f'(x)
- $\bullet \int_a^b f(x)dx$
- $\sqrt{x^2+3}$
- $\bullet$  sin, cos, log, ln
- $\bullet \ \frac{x-1}{x+1}$

### align

$$\alpha = a + b - c \tag{1}$$

$$\beta = 2c \tag{2}$$

$$\alpha = a + b - c$$
$$= 2c$$
$$= 5$$

$$\alpha = a + b - c 
\beta = 2c$$
(3)

# tabular and graphic

Jan.	Feb.	Mar.
2	0	3
1	4	7

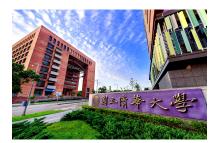


Figure: 國立清華大學

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