

| Item | value |        | $a^2+b^2=c^2$ |
|------|-------|--------|---------------|
|      | first | second |               |
| a    | b     | c      |               |

$$a^2+b^2=c^2\tag{123}$$

$$\text{cnsn (123) cncnc}$$

$$\text{In text:}$$

$$\lim_{n\rightarrow\infty}\sum_{k=1}^n\frac{1}{k^2}=\frac{\pi^2}{6}$$

$$\neq\geq\leq\approx\equiv\propto\sim$$

$$a_1+a_2+\cdots+a_n$$

$$p_{ij}^3\qquad m_{\mathrm{mxm}}\qquad \sum_{k=1}^3k\\ f'(x)=x^2\quad f''^2(x)=2x$$

$$\sqrt[4]{\pi^7}\quad \binom{n}{k}\quad \dim 3$$

$$\lim_{x\rightarrow 0}\frac{\sin x}{x}=1$$

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

$$\mathbf{X} = \begin{pmatrix} x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{n1} & x_{n2} & \cdots & x_{nn} \end{pmatrix}$$

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

$$\mathbf{X} = \begin{pmatrix} x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{n1} & x_{n2} & \cdots & x_{nn} \end{pmatrix}$$

