$$\begin{matrix} 1 & 0 \\ 0 & 1 \end{matrix} \qquad \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \qquad \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \qquad \begin{Bmatrix} 1 & 0 \\ 0 & 1 \end{Bmatrix} \qquad \begin{vmatrix} 1 & 0 \\ 0 & 1 \end{vmatrix} \qquad \begin{Vmatrix} 1 & 0 \\ 0 & 1 \end{Vmatrix}$$

$$A = \begin{pmatrix} a_{11}^2 & a_{12}^2 & a_{13}^2 \\ 0 & a_{22} & a_{23} \\ 0 & 0 & a_{33} \end{pmatrix}$$

$$A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix} \qquad A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix} \qquad A = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix}_{n\times n}$$

$$\begin{pmatrix} \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} & \mathbf{0} \\ \mathbf{0} & \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \end{pmatrix} \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ & a_{22} & \dots & a_{2n} \\ & & \ddots & \vdots \\ & 0 & & a_{nn} \end{pmatrix}$$

$$\begin{pmatrix} 1 & \frac{1}{2} & \dots & \frac{1}{n} \\ \dots & \dots & \dots & \dots \\ m & \frac{m}{2} & \dots & \frac{m}{n} \end{pmatrix}$$

复数 $z = (x, y)$ 也可以用矩阵 $\left(\begin{smallmatrix} x & -y \\ y & x \end{smallmatrix}\right)$

$$\left(\begin{array}{c|c} \frac{1}{2} & 0 \\ \hline 0 & -\frac{a}{b}c \end{array}\right)$$

$$\left(\begin{array}{ccc|ccc} a & \dots & a & b & \dots & b \\ & \ddots & \vdots & \vdots & \iddots & \\ & & a & b & & \\ \hline & & & c & \dots & c \\ & 0 & & \vdots & & \vdots \\ & & & c & \dots & c \end{array}\right) \begin{matrix} \left.\begin{matrix} \\ \\ \\ \end{matrix}\right\} p \\ \left.\begin{matrix} \\ \\ \\ \end{matrix}\right\} q \end{matrix}$$

$$\underbrace{\qquad}_{m} \qquad \underbrace{\qquad}_{m}$$