$$\begin{matrix} 0 & 1 \\ 1 & 0 \end{matrix}$$

$$\begin{pmatrix} 0 & i \\ i & 0 \end{pmatrix}$$

$$\begin{bmatrix} 0 & i \\ i & 0 \end{bmatrix}$$

$$\begin{vmatrix} 0 & i \\ i & 0 \end{vmatrix}$$

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

$$A = \begin{bmatrix} a_{11} & \dots & a_{1n} \\ & \ddots & \vdots \\ 0 & & a_{nn} \end{bmatrix}_{n \times n}$$

$$A = \begin{bmatrix} a_{11} & \dots & a_{1n} \\ \ddots & \ddots & \vdots \\ 0 & & a_{nn} \end{bmatrix}_{n \times n}$$

$$\begin{pmatrix} 1 & 0 & & 0 \\ 0 & 1 & & \\ & & 1 & 0 \\ 0 & & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 0 & & 0 \\ 0 & 1 & & \\ & & 1 & 0 \\ 0 & & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 0 & & 0 \\ 0 & 1 & & \\ & & 1 & 0 \\ 0 & & 0 & -1 \end{pmatrix}$$

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

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

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

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

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

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