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

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

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

$$A = \begin{pmatrix} 1 & 0 & & \\ 0 & 1 & & 0 \\ & & 1 & 0 \\ & 0 & 0 & 1 \end{pmatrix}$$

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

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

复数 $z = (x, y)$ 可以表示为矩阵形式：$\left(\begin{smallmatrix} x & -y \\ y & x \end{smallmatrix}\right)$ 来表示

$\frac{1}{2}$	2
2	2
0	$-\frac{1}{2}$

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

$$
\underbrace{\hphantom{a \quad \cdots \quad a}}_{m} \quad \underbrace{\hphantom{b \quad \cdots \quad b}}_{m}
$$