

ESERCIZI SU FORMA CANONICA DI JORDAN

Calcolare la forma canonica di Jordan delle seguenti matrici definite sul campo dei numeri complessi.

$$\begin{pmatrix} 39 & -64 \\ 25 & -41 \end{pmatrix} \quad \begin{pmatrix} -1 & -1 \\ 0 & -1 \end{pmatrix} \quad \begin{pmatrix} 1 & 3 & -2 \\ 0 & 7 & -4 \\ 0 & 9 & -5 \end{pmatrix} \quad \begin{pmatrix} 3 & 0 & 1 \\ 0 & 3 & 0 \\ 0 & 0 & 3 \end{pmatrix} \\
 \begin{pmatrix} 22 & -2 & -12 \\ 20 & 0 & -12 \\ 30 & -3 & -16 \end{pmatrix} \quad \begin{pmatrix} -13 & 8 & 1 & 2 \\ -22 & 13 & 0 & 3 \\ 8 & -5 & 0 & -1 \\ -22 & 13 & 5 & 5 \end{pmatrix} \quad \begin{pmatrix} 2 & 1 & 1 & 1 & 0 \\ 0 & 2 & 0 & 0 & 0 \\ 0 & 0 & 2 & 1 & 0 \\ 0 & 0 & 0 & 1 & 1 \\ 0 & -1 & -1 & -1 & 0 \end{pmatrix} \\
 \begin{pmatrix} 1 & -1 & -2 \\ 0 & 3 & 0 \\ 0 & 1 & 3 \end{pmatrix} \quad \begin{pmatrix} -6 & -5 & -8 \\ -2 & -2 & -3 \\ 6 & 5 & 8 \end{pmatrix} \quad \begin{pmatrix} -2 & 0 & 0 \\ 0 & -2 & 0 \\ 1 & 3 & -2 \end{pmatrix} \\
 \begin{pmatrix} -1 & 0 & 0 & 0 \\ 0 & -2 & 0 & -4 \\ 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & 3 \end{pmatrix} \quad \begin{pmatrix} 1 & -2 & -2 & 1 \\ 0 & 2 & 1 & 0 \\ 0 & 1 & 1 & 0 \\ -1 & 0 & 1 & 0 \end{pmatrix} \quad \begin{pmatrix} 2 & 5 & 0 & 0 & 0 \\ 0 & 2 & 0 & 0 & 0 \\ 0 & 0 & 4 & 2 & 0 \\ 0 & 0 & 3 & 5 & 0 \\ 0 & 0 & 0 & 0 & 7 \end{pmatrix} \\
 \begin{pmatrix} 0 & 1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 1 & -1 \\ -1 & 1 & 2 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & -1 & 1 & 1 & 1 \\ 0 & 0 & 0 & 1 & 0 & 1 \end{pmatrix}$$