

Solo - gonos Ferreira da Trindade

Lista 1

1) 1) $A = [a_1 \dots a_n] = 0$ or a_i são colunas da matriz A e or c_i no vetor

2) $\sum_{j=1}^n a_{ij} c_j$ onde $i = 1, \dots, m$ de A

$$2) a) c_1 = \begin{bmatrix} 1 \\ 3 \\ 2 \end{bmatrix} \quad c_2 = \begin{bmatrix} 1 & 2 \\ 4 & 5 \\ 7 & 8 \end{bmatrix}$$

b) dimensão 1 e 2

c) posto: 1 e 2

d) linhas independentes: 1 e 2

$$3) \begin{bmatrix} 0 & 0 & 1 & 1 \\ 0 & 0 & 1 & 1 \\ 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 \end{bmatrix} = \begin{bmatrix} 0 & 1 \\ 0 & 1 \\ 1 & 1 \\ 1 & 1 \end{bmatrix} \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix} = A_1$$

Posto 2

$$A_2 = \begin{bmatrix} 0 & 1 \\ 0 & 1 \\ 1 & 1 \\ 1 & 1 \\ 0 & 1 \\ 0 & 1 \\ 1 & 1 \\ 1 & 1 \end{bmatrix} \quad \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix} \quad A_3 = \begin{bmatrix} 0 & 1 \\ 0 & 1 \\ 1 & 1 \\ 1 & 1 \\ 0 & 1 \\ 0 & 1 \\ 1 & 1 \\ 1 & 1 \end{bmatrix} \begin{bmatrix} 1 & 1 & 0 & 0 & 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 & 0 & 0 & 1 & 1 \end{bmatrix}$$

Posto 2

Posto 2

4) $A_{m \times n} \times B_{n \times p} = C_{m \times p}$

for $k=1$ to n // # column de A, # linha de B

for $i=1$ to m // # linha de A, # linha de C

for $j=1$ to p // # column de B, # column de C

$$C(i,j) = C(i,j) + A(i,k) * A(k,j)$$