

Estudo do Caso - 1.

$$X_1 + 380 = X_{11} + 430 \Rightarrow X_{11} - X_1 = 430 - 380 \Rightarrow X_{11} - X_1 = 280$$

$$X_{11} + 540 = X_{11} + 420 \Rightarrow X_{11} - X_{11} = 420 - 540 \Rightarrow X_u = 230$$

$$X_{III} + 4f_0 = 400 + 420 \Rightarrow X_{III} = 820 - 4f_0 \Rightarrow X_{III} = 350$$

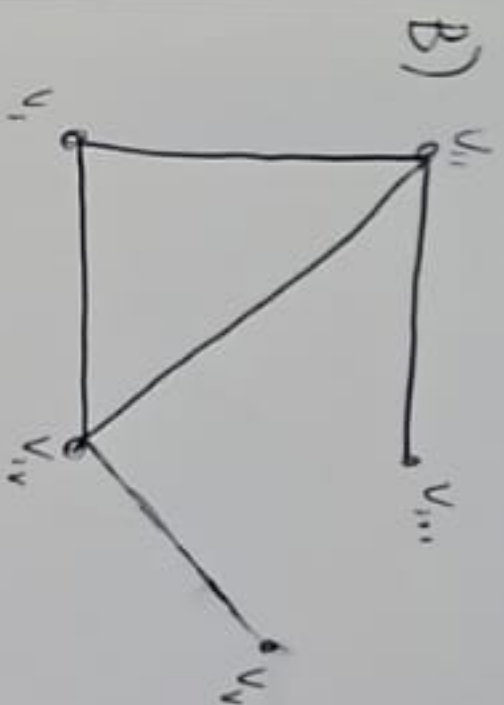
$$420 + 150 = X_{IV} + X_I \Rightarrow X_{IV} = 870 - X_I \Rightarrow X_{IV} = 590$$

$$\begin{cases} X_1 = 280 \\ X_n = 230 \\ X_{III} = 350 \\ X_{IV} = 590 \end{cases}$$



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

Handwritten mathematical diagram showing a grid of numbers with various annotations and arrows. The grid is 5 rows by 5 columns. Annotations include 'm=' at the top left, '2,3' at the top right, and '2,3,5' at the bottom right. Arrows point from these annotations to specific cells in the grid. The grid contains numbers: Row 1: 2, 3, 1, 0, 1; Row 2: 1, 0, 1, 1, 0; Row 3: 1, 1, 0, 0, 1; Row 4: 1, 0, 0, 1, 0; Row 5: 1, 1, 1, 0, 0. Arrows point from '2,3' to (1,1), (1,2), (2,1), (2,2), (3,1), (3,2), (4,1), (4,2), (5,1), (5,2). An arrow points from 'm=' to (1,3). An arrow points from '2,3,5' to (4,4).



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

3)

$$M = \begin{bmatrix} 0 & 1 & 0 & 1 & 1 \\ 1 & 0 & 1 & 0 & 1 \\ 1 & 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 & 1 \\ 1 & 0 & 1 & 1 & 0 \end{bmatrix}$$

$$R = \{v_1, v_3\}, \{v_1, v_4\}, \{v_3, v_1\}, \{v_3, v_4\}, \{v_4, v_3\}, \{v_1, v_5\}, \{v_1, v_7\}, \{v_3, v_5\}, \{v_3, v_7\}, \{v_4, v_5\}, \{v_4, v_7\}, \{v_5, v_1\}, \{v_5, v_3\}, \{v_5, v_4\}, \{v_7, v_1\}, \{v_7, v_3\}, \{v_7, v_4\}, \{v_7, v_5\}$$

Δ ~~Sp~~ $E_{\text{specilgradamenti}}$: V_1, V_3, V_4 .