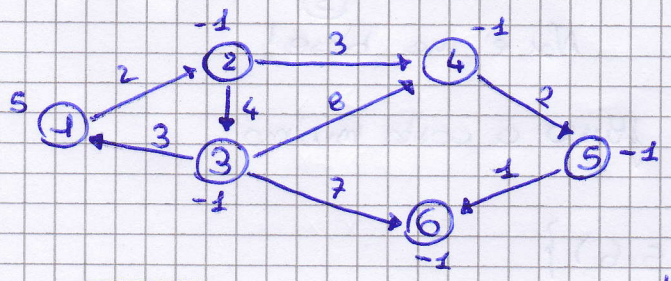
- Flusso a costo minimo



$\min \sum c_{ij} x_{ij}$

$\sum x_{ij} - \sum x_{ji} = b_i$ (uscente - entrante)

$\min \quad 2x_{12} +$

$+ 4x_{23} + 3x_{24} +$

$+ 3x_{31} + 8x_{34} + 7x_{36} +$

$+ 2x_{45} +$

$+ x_{56}$

$x_{12} - x_{31} = 5$

$x_{24} + x_{23} - x_{12} = -1$

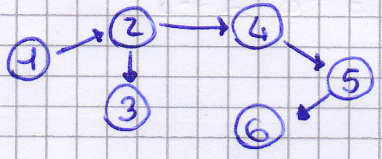
$x_{31} + x_{34} + x_{36} - x_{23} = -1$

$x_{45} - x_{36} - x_{24} = -1$

$x_{56} - x_{45} = -1$

$x_{ij} \geq 0$ interi

- $B_1 = \{(1,2), (2,3), (2,4), (4,5), (5,6)\}$ è base?



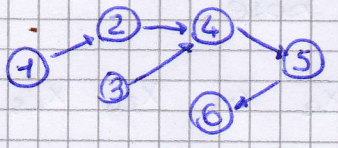
sì → forma un albero ricoprente. (Grafo connesso e aciclico)

È ammissibile? → Porto le variabili fuori base a $\emptyset$
- le variabili in base devono essere $\geq \emptyset$

$x_{31} = x_{34} = x_{36} = 0$

$$\begin{cases} x_{12} = 5 \\ x_{23} = -1 \\ x_{24} = 3 \\ x_{45} = 2 \\ x_{56} = 1 \end{cases} \rightarrow \bar{x} = (5\ -1\ 3\ 0\ 0\ 0\ 2\ 1) \geq 0 \Rightarrow \text{SBA}$$

- $B_2 = \{(1,2), (2,4), (3,4), (4,5), (5,6)\}$ è base?



sì

È ammissibile?

$x_{31} = x_{36} = x_{23} = 0$

$$\begin{cases} x_{12} = 5 \\ x_{34} = -1 \Rightarrow \text{Non è SBA} \end{cases}$$