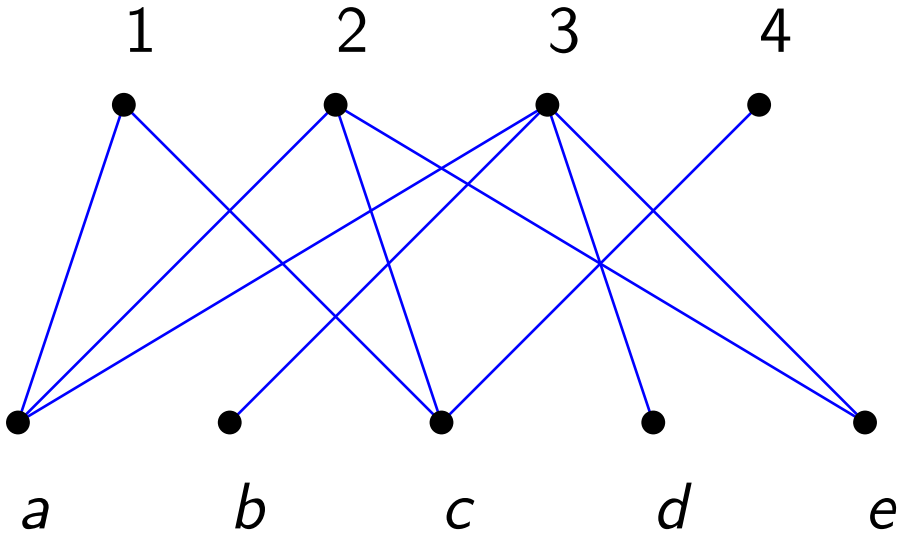
Množinový systém a jeho incidenční graf

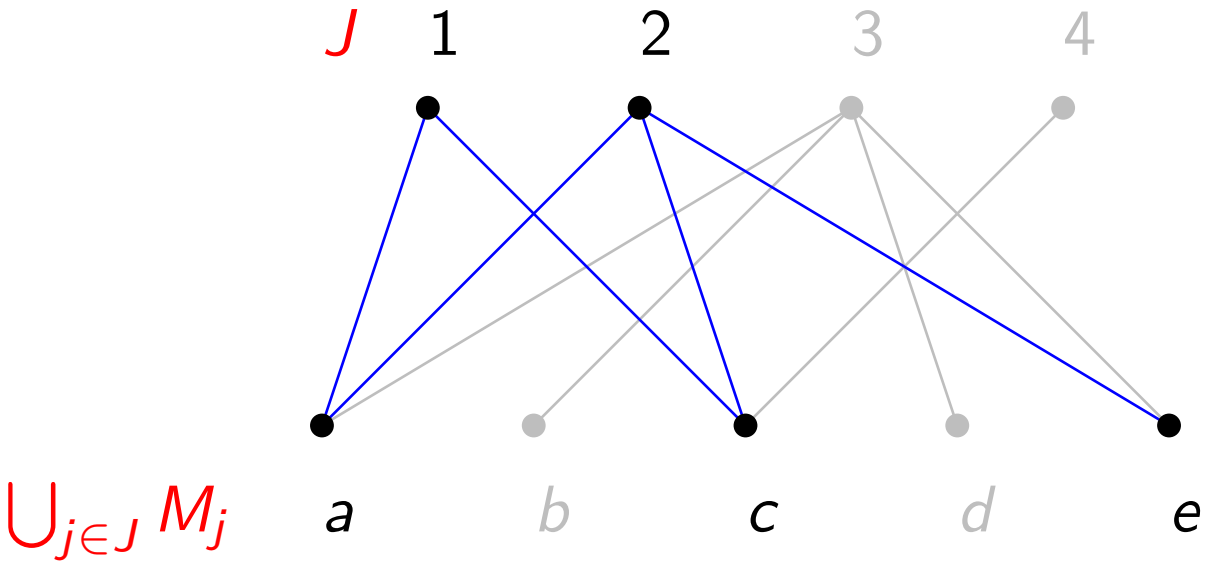
$M_1 = \{a, c\}, M_2 = \{a, c, e\}, M_3 = \{a, b, d, e\}, M_4 = \{c\}$

$G_{\mathcal{M}}$



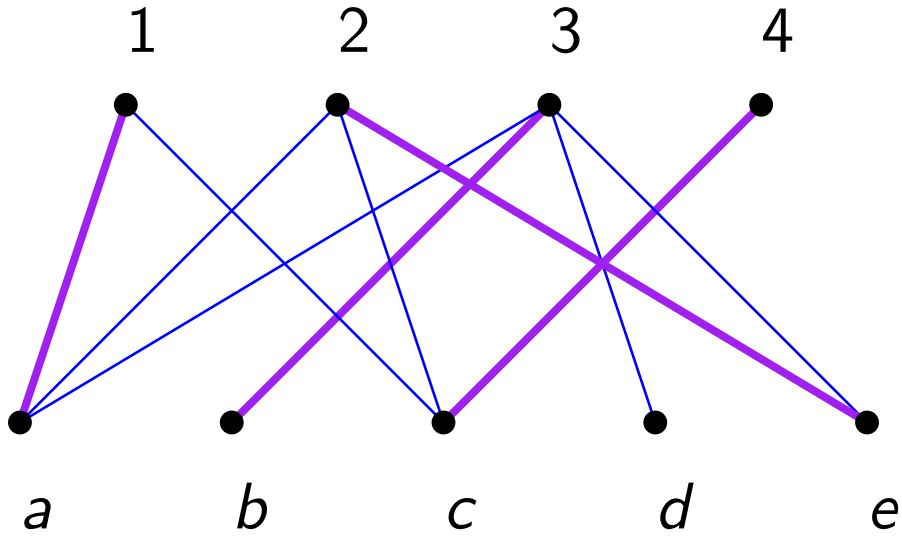
Ukázka Hallovy podmínky

$$J = \{1, 2\}, \left|\bigcup_{j \in J} M_j\right| = |\{a, c\} \cup \{a, c, e\}| = |\{a, c, e\}| \geq |J|$$



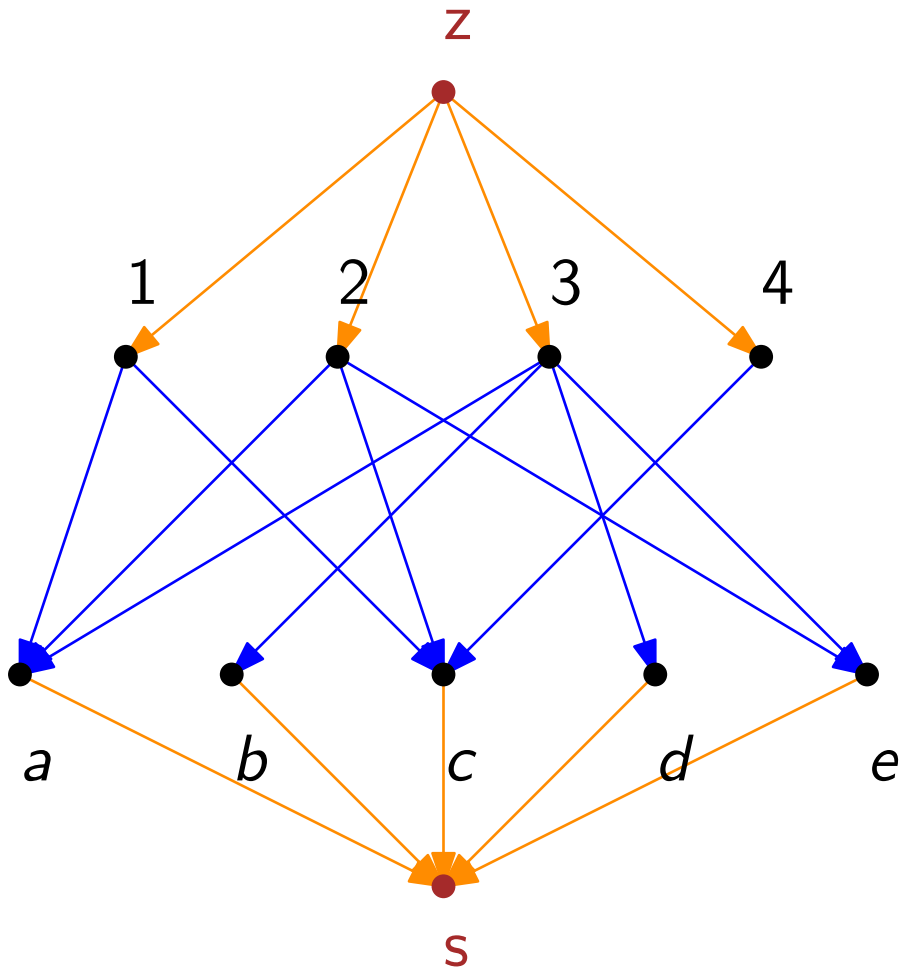
Maximální párování odpovídá SRR

$$M_1 = \{a, c\}, M_2 = \{a, c, e\}, M_3 = \{a, b, d, e\}, M_4 = \{c\}$$

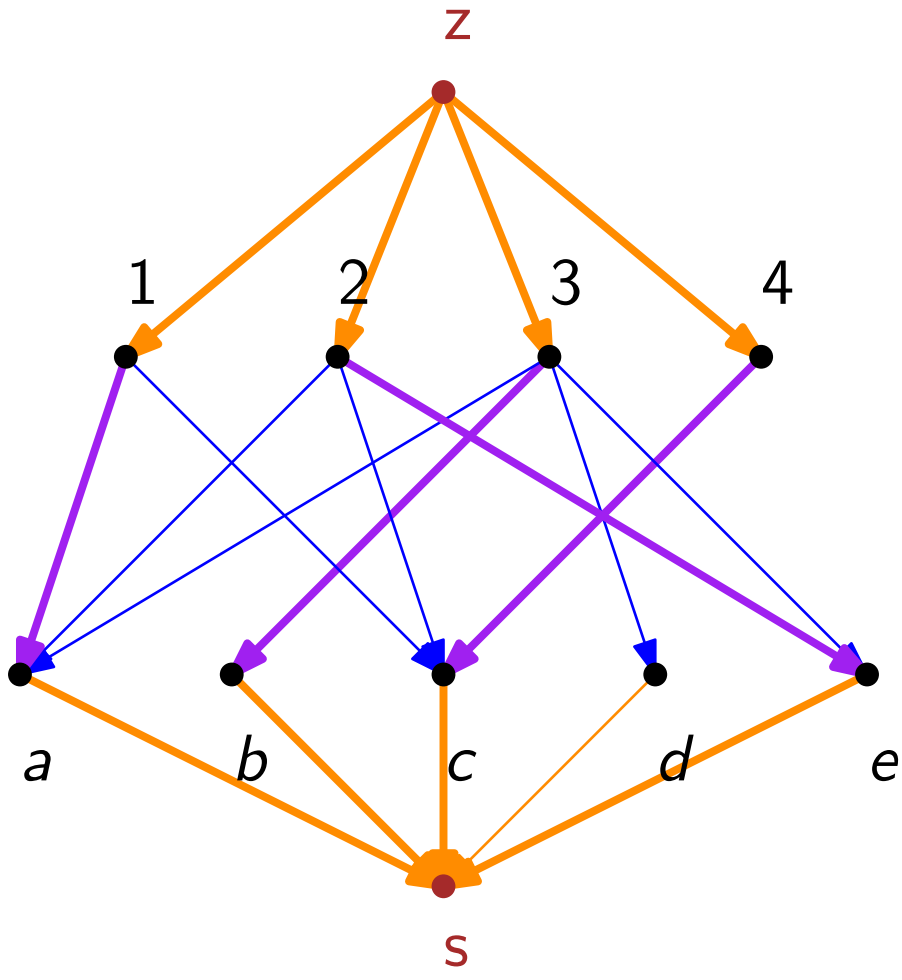


$$f(1) = a \in M_1, f(2) = e \in M_2, f(3) = b \in M_3, f(4) = c \in M_4$$

Doplnění na síť s jednotkovými kapacitami

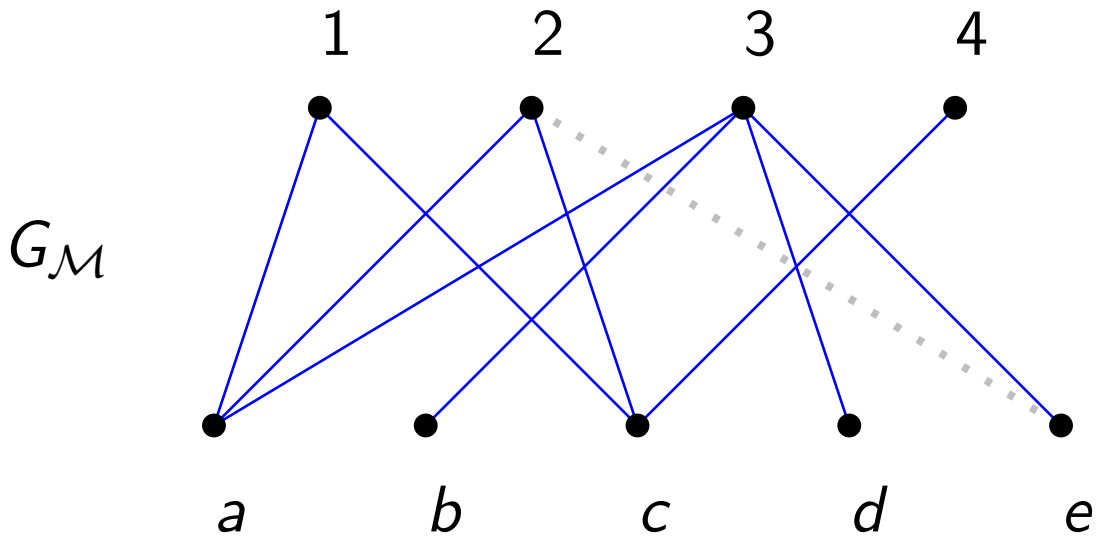


Tok odpovídá párování



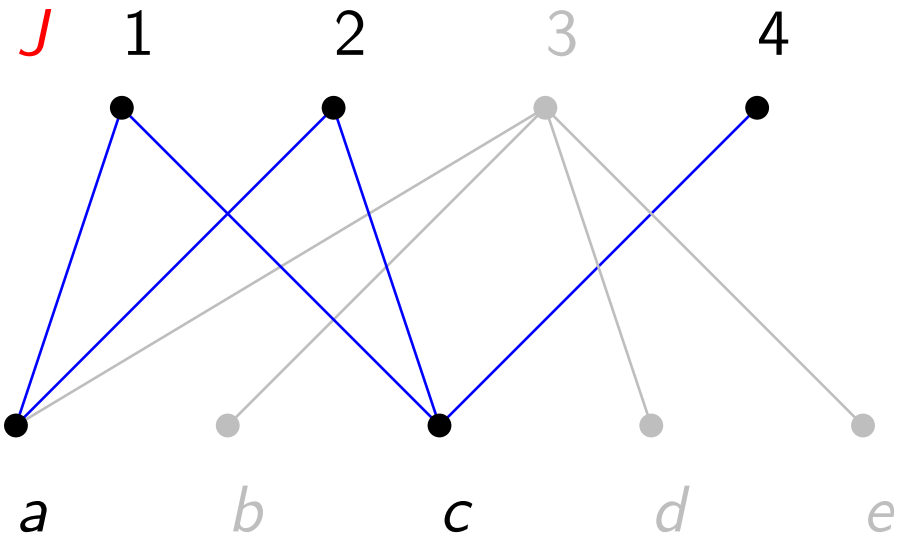
Jiný množinový systém

$$M_1 = \{a, c\}, M_2 = \{a, c\}, M_3 = \{a, b, d, e\}, M_4 = \{c\}$$

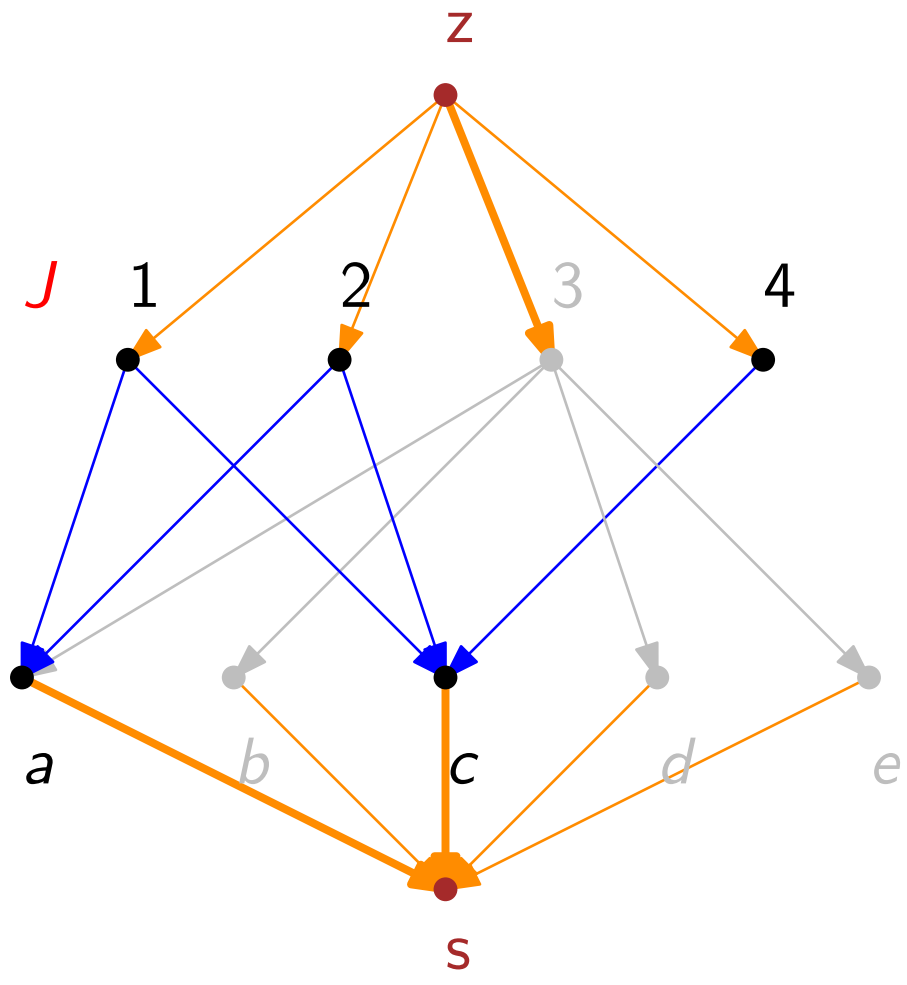


Hallova podmínka nesplněna

$$J = \{1, 2, 3\}, |\bigcup_{j \in J} M_j| = |\{a, c\}| < |J|$$



Minimální řez



$\bigcup_{j \in J} M_j$