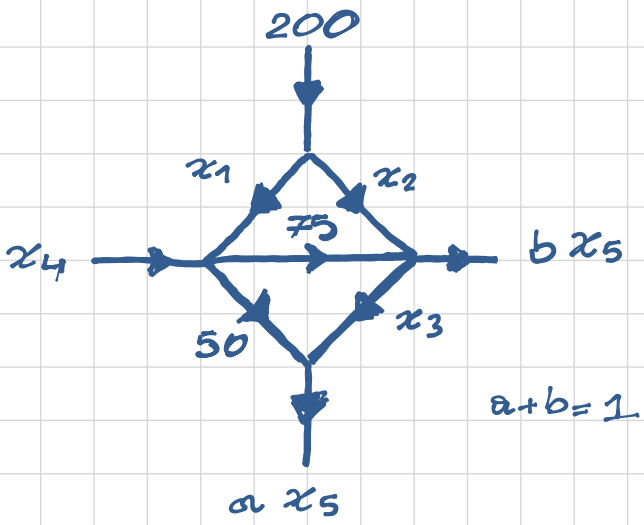
Networks



$a+b=1$

$200 + x_4 = a x_5 + b x_5 = x_5 \rightarrow x_4 = x_5 - 200$

$200 = x_1 + x_2$

$x_1 + x_4 = 50 + 75 = 125 \rightarrow x_1 = 125 - x_4$

$x_2 + 75 = x_3 + b x_5 \rightarrow x_2 = b x_5 + x_3 - 75$

$x_3 + 50 = a x_5 \rightarrow x_3 = a x_5 - 50$

x_5 FREE VARIABLE

$x_1 = 125 - x_5 + 200 = 325 - x_5$

$x_2 = b x_5 + a x_5 - 50 - 75 = x_5 - 125$

$x_3 = a x_5 - 50$

$x_4 = x_5 - 200$

$x_5 \leq 325$

$a \geq 50/x_5$

$x_5 \geq 200$

"$x_5 = 200$"

$x_1 = 125$

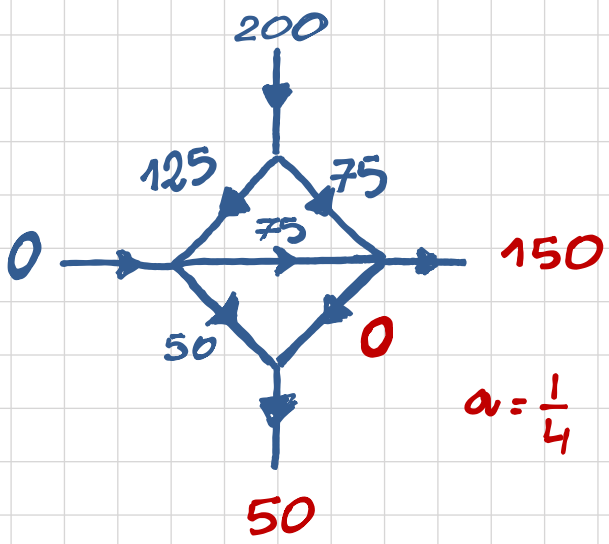
$x_2 = 75$

$x_3 = 200a - 50$

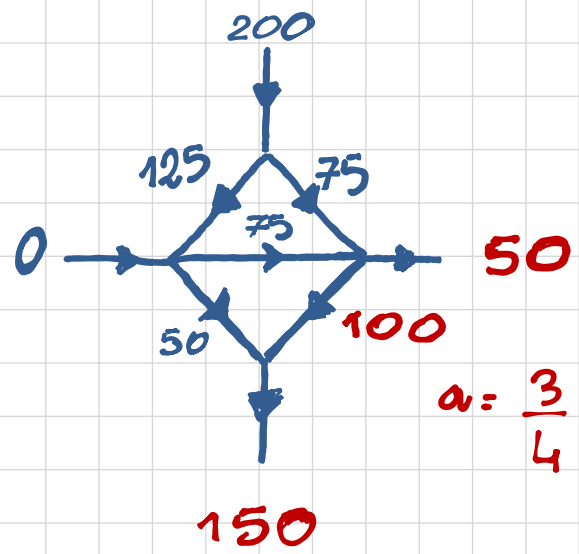
$x_4 = 0$

$a = 1/4$ $(125, 75, 0, 0)$

$a = 3/4$ $(125, 75, 100, 0)$



$a = \frac{1}{4}$



$a = \frac{3}{4}$

"$x_5 = 325$"

$x_1 = 0$

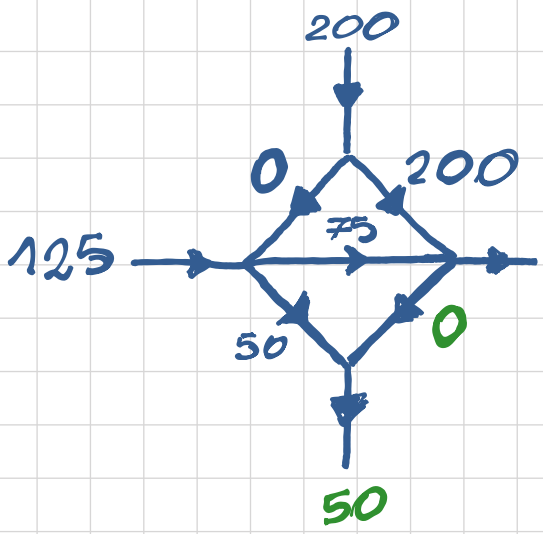
$x_2 = 200$

$x_3 = 325a - 50$

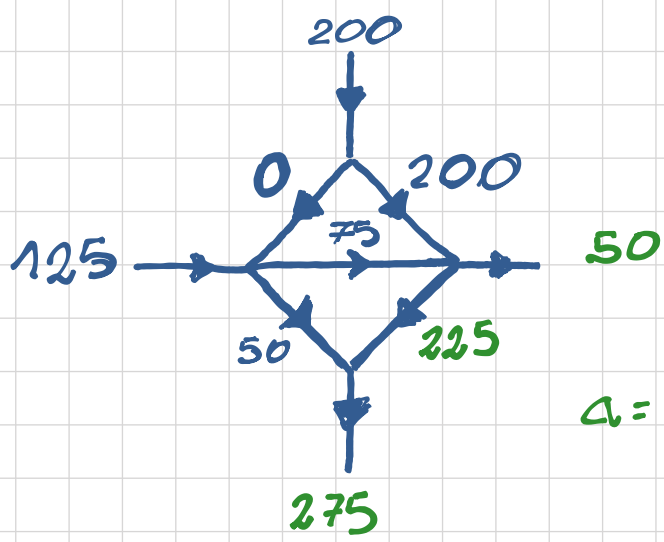
$x_4 = 125$

$a = 2/13$ $(0, 200, 0, 125)$

$a = \frac{11}{13}$ $(0, 200, 225, 125)$



$a = \frac{2}{13}$



$a = \frac{11}{13}$