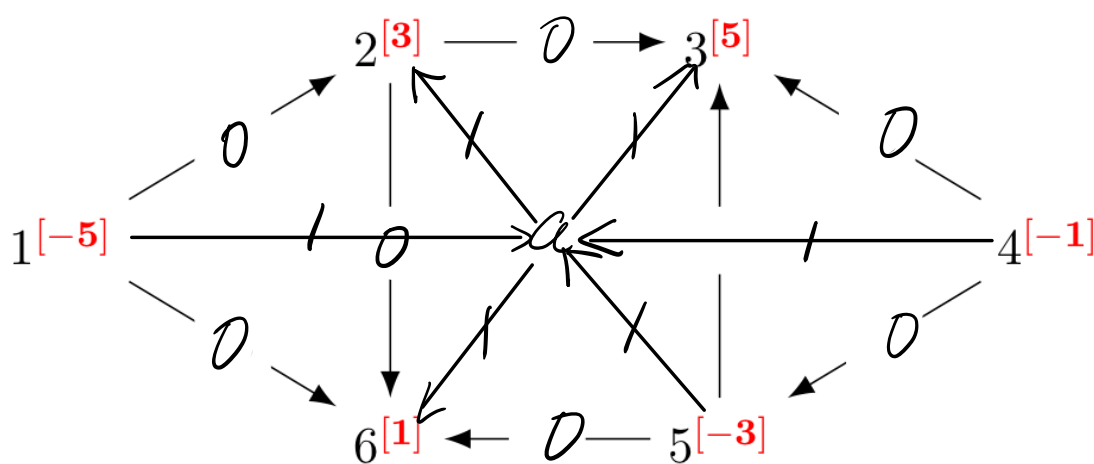
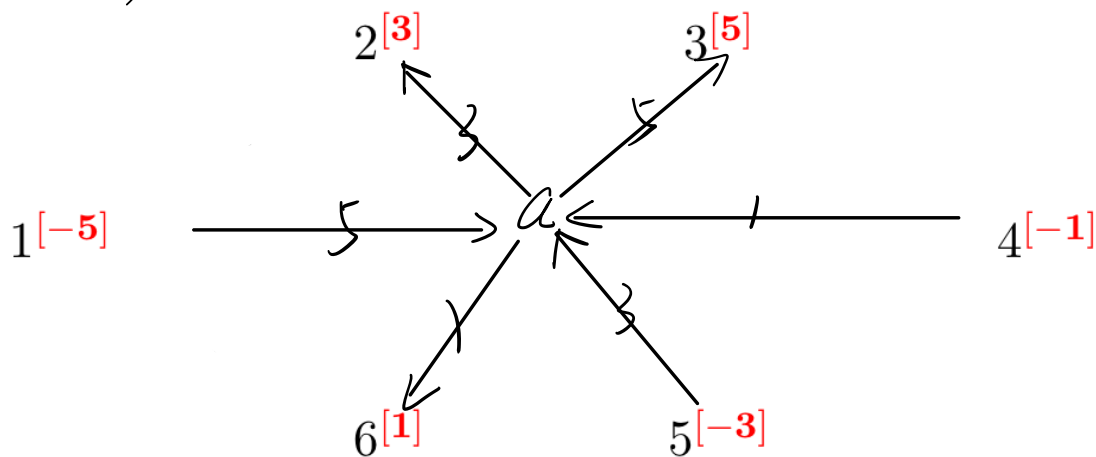


Phase 1: new network:



Spanning tree:



Total cost: 18

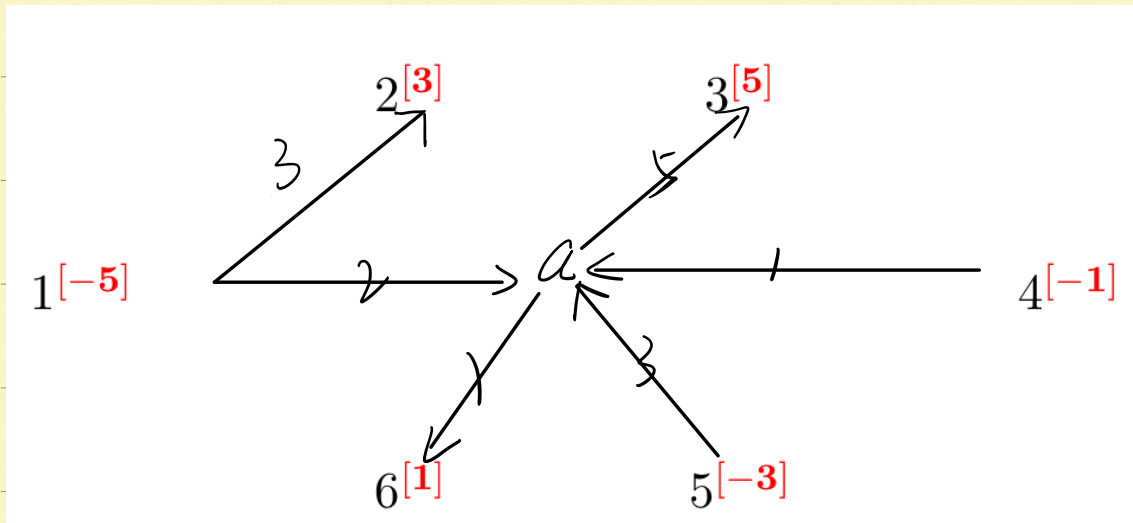
Pick arc:

reduced cost of $x_{12} = C_{12} - C_{1a} - C_{a2} = -2$, $\delta \leq 3$

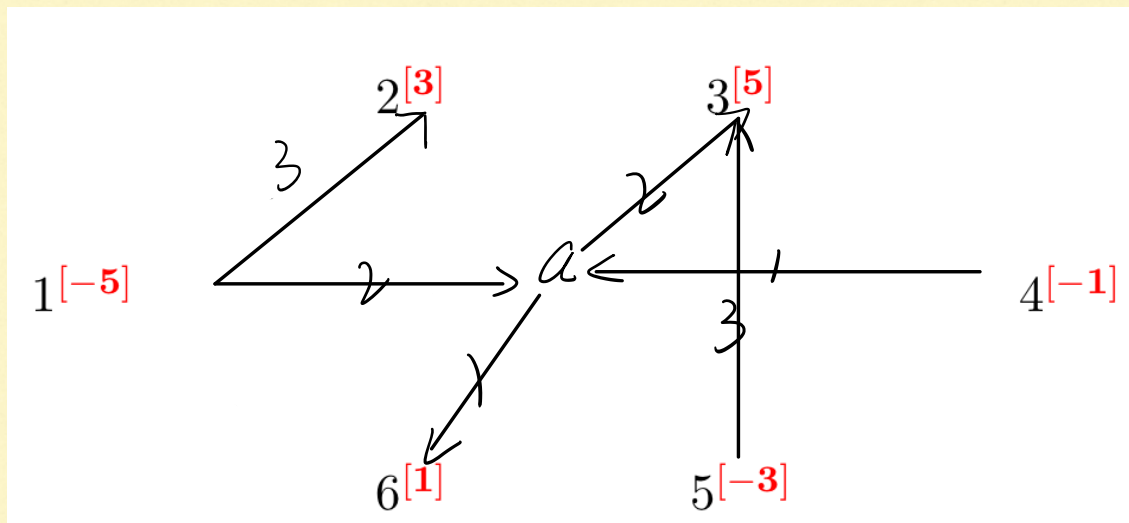
$$X_{16} \quad -2 \quad 8 \leq 1.$$
$$X_{53} \quad -2 \quad 8 \leq 3$$
$$\chi_{56} \quad -2 \quad \delta \leq 1$$
$$X_4 \quad -2 \quad \delta \leq 1.$$

others 0

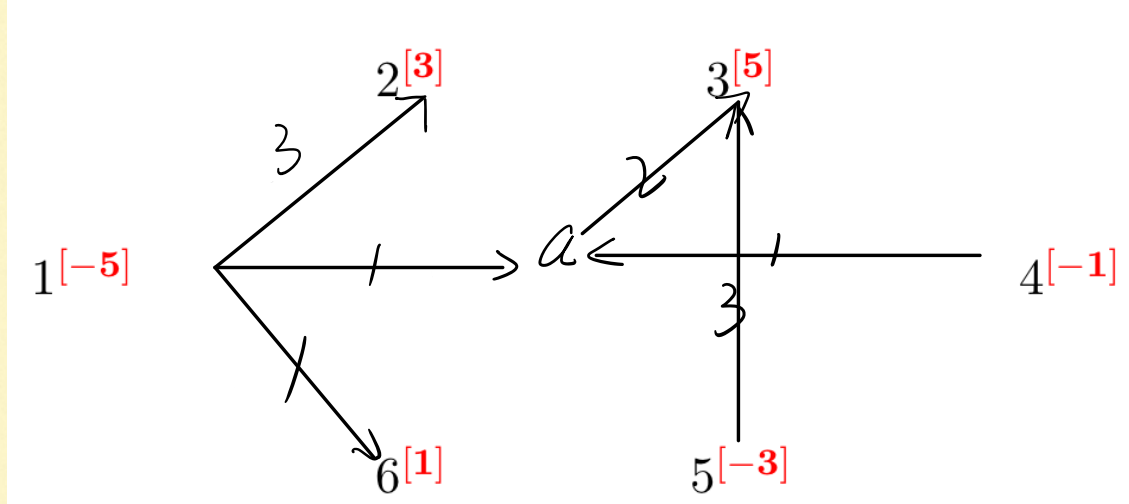
add x_{12} , delete x_{a2}



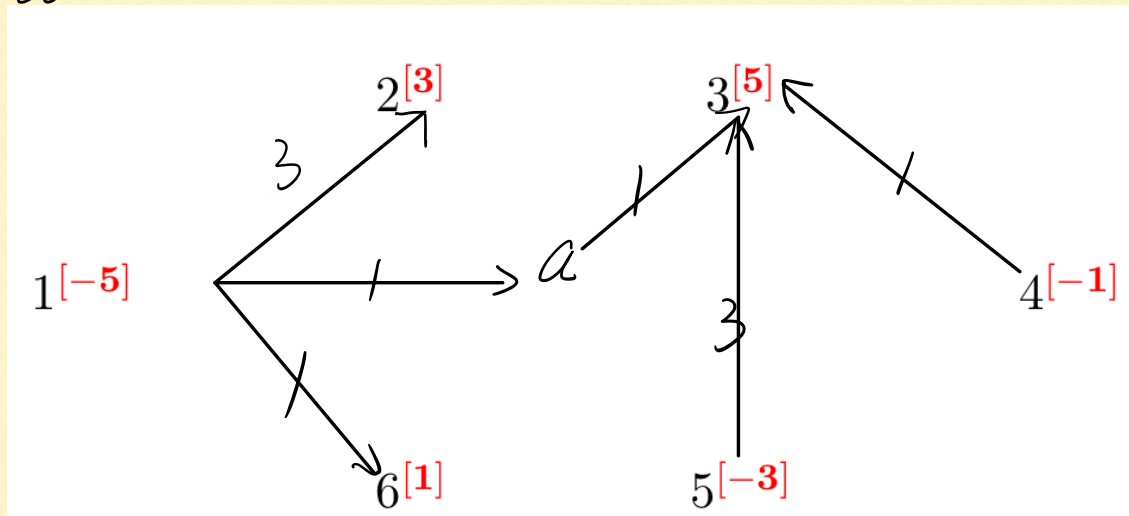
add x_5 delete x_5



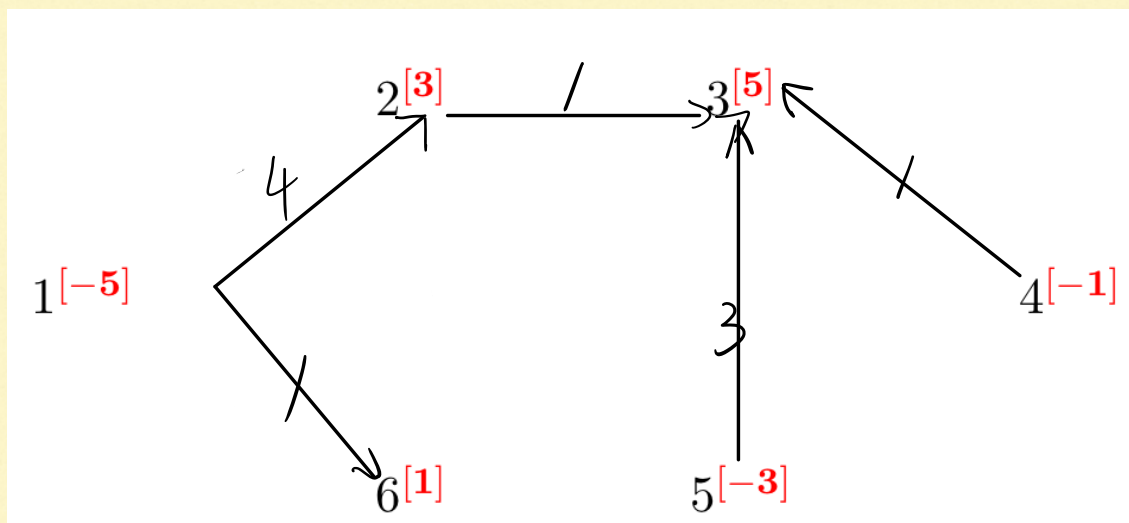
add x_{16} , delete x_{a6}



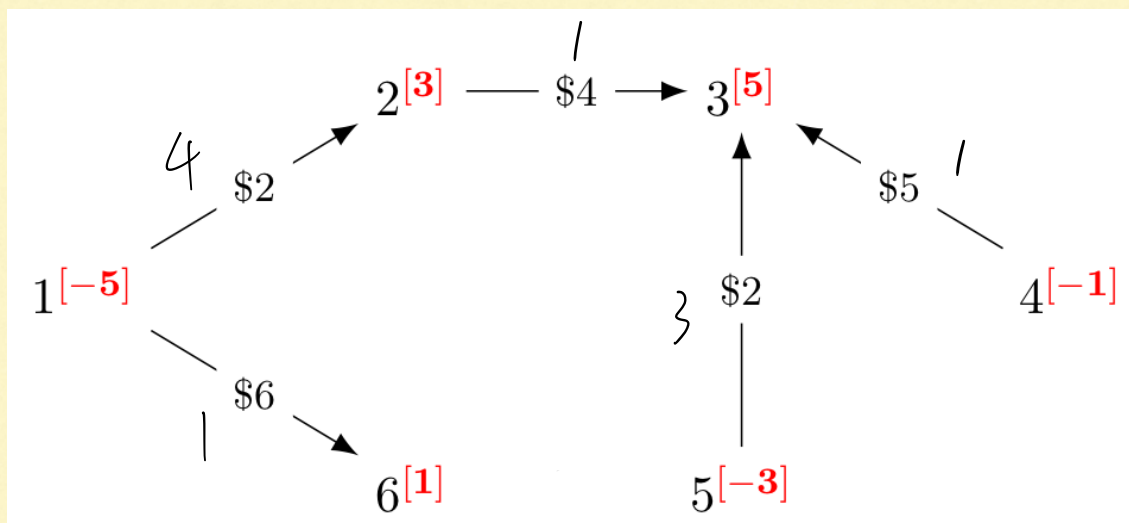
add x_{43} delete x_{4a}



add x_{23} delete x_{1a} , x_{a3}



phase two network:



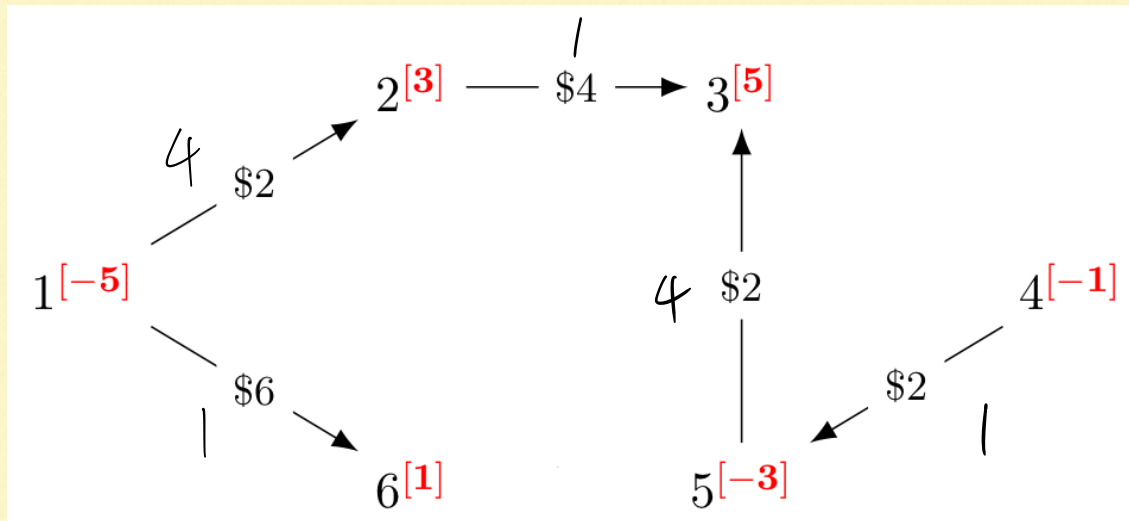
pick arc:

x_{45} 's reduced cost: $2 + 2 - 5 = -1$, $\delta \leq 1$

x_{56} $1 - 6 + 2 + 4 - 2 = -1$, $\delta \leq 1$

x_{26} $5 + 2 - 6 = 1$

add x_{45} delete x_{43}



add x_{56} delete x_{16}

