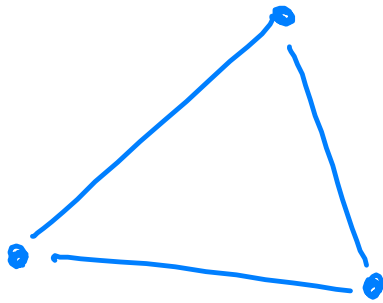
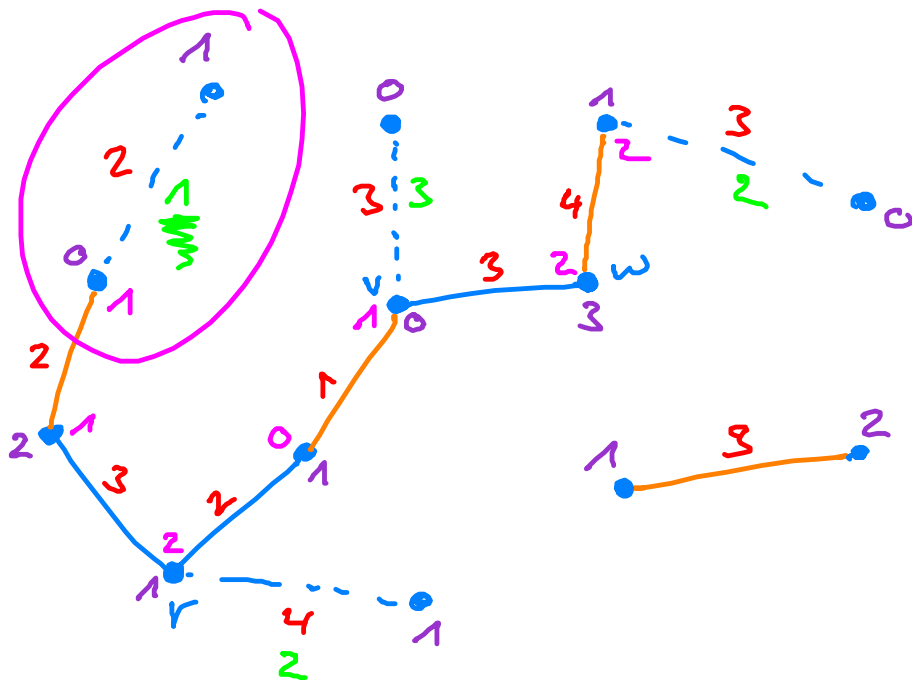
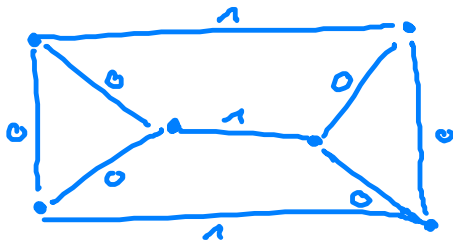


$\circ \hat{=}$ outer node



$$x \equiv \frac{1}{2}$$

Example where LP-value is strictly smaller than IP-optimimum:



dual constraints:

$$\gamma_u + \gamma_v \leq c_e \quad \forall e = \{u, v\} \in E$$

Proof of running time in Theorem 13.18:

Matching M increases every $O(n)$ iterations.

M can increase at most $O(n)$ times

$\Rightarrow O(n^2)$ iterations

Every step takes at most $O(n)$ time. \square