Advanced Algorithms & Data Structures
Assignment 1

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1 Exercise 1

Find for each of the two graphs in Figure **??**, *a b-flow for the graph or argue that the graph has no b-flow*

For a directed graph $G = (V, E)$. For each vertex $v \in V$ let $\delta^+(v)$ be the set of outgiong edges from v and δ^- be the set of incoming edges to v.
Given is that each a b-flow under the following constraints

$$\sum_{e \in \delta^-(v)} x_e - \sum_{e \in \delta^+(v)} x_e = b_v, \forall v \in V \tag{1}$$

$$0 \leq x_e \leq u_e, \forall e \in E \tag{2}$$

References