

**TD3 – Minimisation d'automates**

**Exercice 1.**

*Minimisation*

Minimiser les automates suivants.

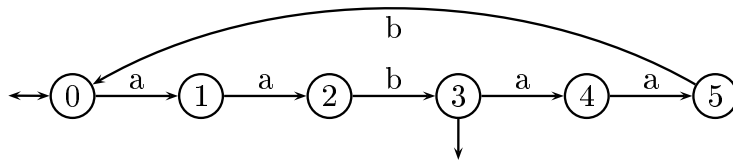


FIG. 1 –  $\mathcal{A}_1$

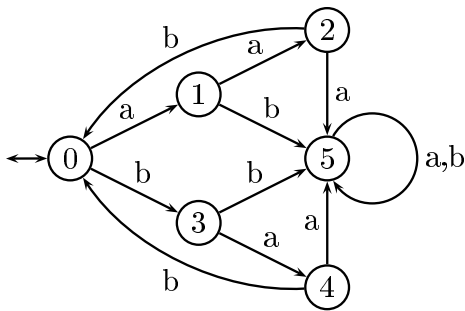


FIG. 2 –  $\mathcal{A}_2$

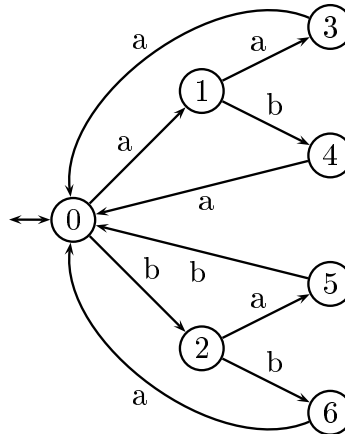


FIG. 3 –  $\mathcal{A}_3$

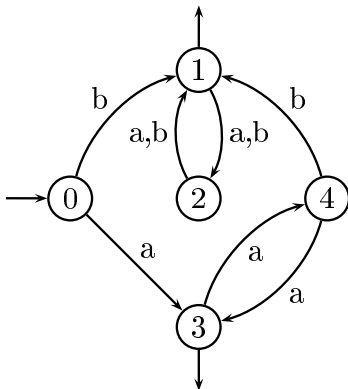


FIG. 4 –  $\mathcal{A}_4$

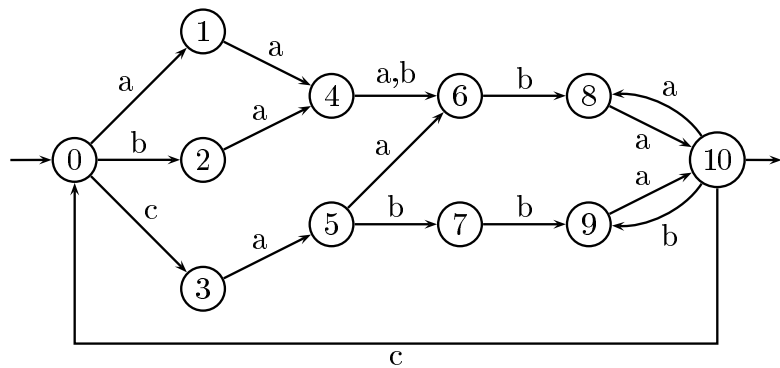
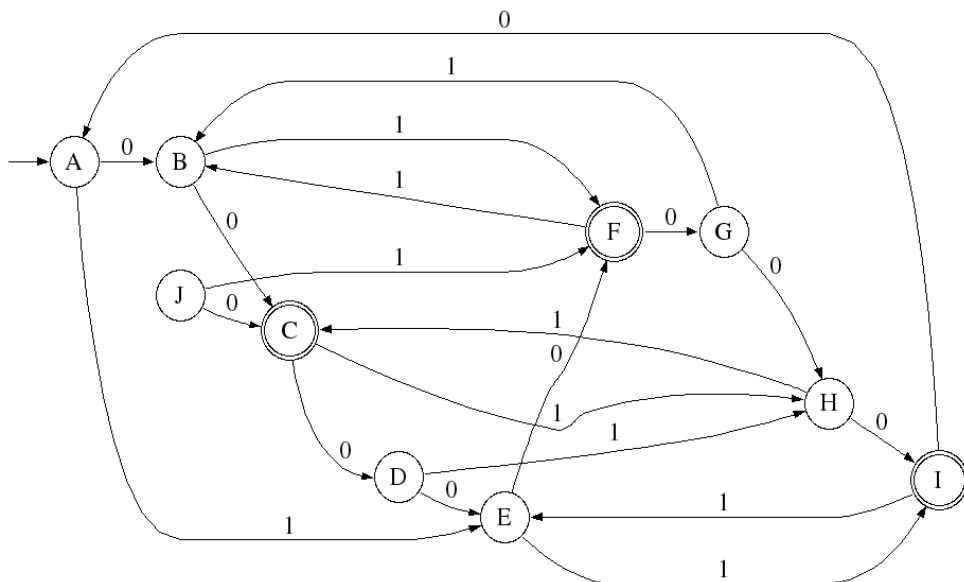
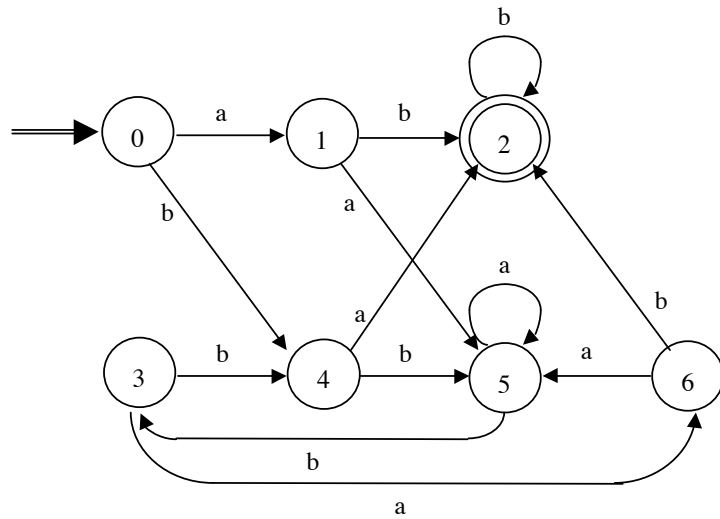


FIG. 5 –  $\mathcal{A}_5$



**Exercice 2.**

*Automate minimal pour un langage*

1. Donner l'automate minimal du langage  $b(ab)^* + (ba)^*b$ .
2. Donner l'automate minimal du langage  $\{x \in \{a, b\}^* : x \text{ contient } aaa\}$ .