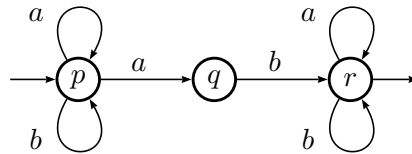


**Prerequisite test**  
**for the Weighted Automata and Transducers part**

Let  $\mathcal{A}_1$  be the automaton represented in the following figure:



1. Compute the determinisation  $\widehat{\mathcal{A}}_1$  of  $\mathcal{A}_1$ .
2. Compute the minimal automaton of the language accepted by  $\mathcal{A}_1$ .
3. Compute the product of  $\mathcal{A}_1$  by the transpose of  $\mathcal{A}_1$ .
4. What is the question that you expected and that was not asked?