

1.

$$(1) 2^A = \{\emptyset, \{\varepsilon\}, \{0\}, \{00\}, \{\varepsilon, 0\}, \{\varepsilon, 00\}, \{0, 00\}, \{\varepsilon, 0, 00\}\}$$

$$(2) A \times B = \{\{\varepsilon, 0\}, \{\varepsilon, 1\}, \{0, 0\}, \{0, 1\}, \{00, 0\}, \{00, 1\}\}$$

2.

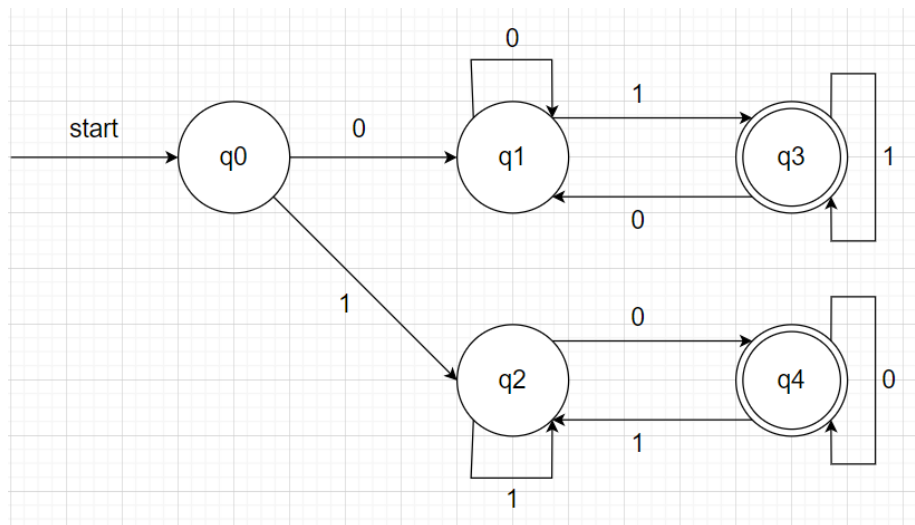


Figure 1: DFA1

3.

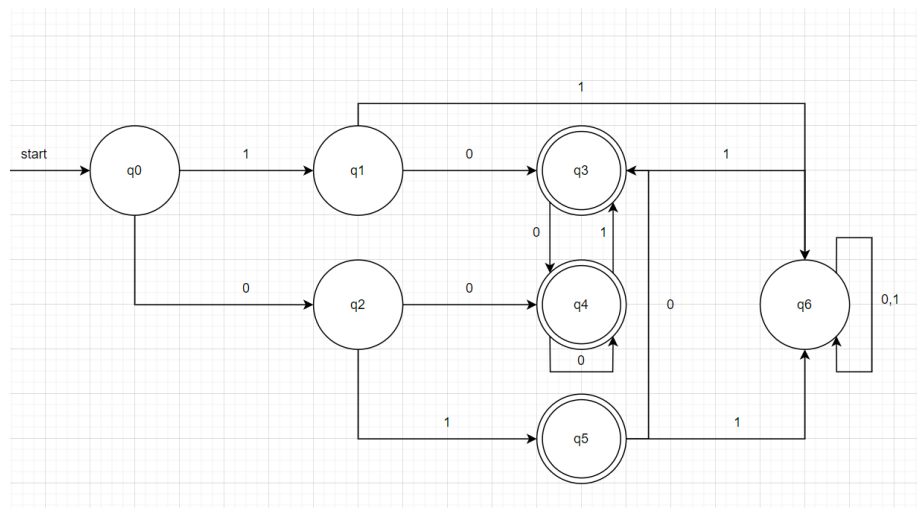


Figure 2: DFA2