1. For each of the following languages, write a regular expression that matches the language.
   (a) \( L_1 = \{w \in \{0, 1\}^* \mid w \text{ has a substring } 010\} \)
   (b) \( L_2 = \{w \in \{0, 1\}^* \mid w \text{ represents a binary number divisible by } 2\} \)
   (c) \( L_3 = \{w \in \{0, 1\}^* \mid w \text{ starts and ends with the same letter}\} \)

2. For each of the following languages, draw an NFA which accepts it:
   (a) \( L_4 = \{w \in \{0, 1\}^* \mid w \text{ contains } 0101 \text{ or } 111 \text{ as a substring}\} \)
   (b) \( L_5 = \{w \in \{0, 1\}^* \mid w^R \in L_4\}, \text{ where } w^R \text{ denotes the reversal of } w. \)