Due January 31

1. Give DFAs that recognize the following languages
   (a) \{w \in \{0, 1\}^* | w \text{ starts with a 1 and has even length}\}.
   (b) \{w \in \{0, 1\}^* | w \text{ ends with 011}\}.
   (c) \{01, 0100\}^*.

2. Using the complementation construction and one of the DFAs from Exercise 1, give a DFA that recognizes the language
   \{w \in \{0, 1\}^* | w \text{ does not end with 011}\}. 