Construct DFA that accept each of the following languages over the alphabet \{0, 1\}. We won't get to all of these in section.

1. (a) \((0 + 1)^*\)
   
   (b) \(\emptyset\)

   (c) \(\{e\}\)

2. Every string except 000.

3. All strings containing the substring 000.

4. All strings \textit{not} containing the substring 000.

5. All strings in which the reverse of the string is the binary representation of a integer divisible by 3.

6. All strings \(w\) such that \textit{in every prefix of} \(w\), the number of 0s and 1s differ by at most 2.