1. Consider the regular expression \((C|D|M|N|P|T)A)^*\)
   

   b. Name two countries that are matched by this RE.

2. RElay Race - Write regular expressions for the following languages:
   
a. all binary strings

   b. all non-empty binary strings

   c. all binary strings beginning and ending with 1

   d. all binary strings ending with 00 (divisible by 4)

   e. all binary strings with at least three 1s

3. Given an English-language description of the language defined by the RE \((0^*10^*10^*)^*\)?

4. BONUS: is it possible to define a RE for all binary integers divisible by 3?
5. Consider this DFA:

- Is 01101 accepted by this DFA?
- Is 11?
- Give an English-language description of the language that this DFA recognizes.
- (Optional) Give a regular expression that defines the same language

6. Draw DFAs that recognize each of these languages from Question 2:
- all binary strings
- all non-empty binary strings
- all binary strings beginning and ending with 1
- all binary strings ending with 00 (divisible by 4)
- all binary strings with at least three 1s