

Construct deterministic finite automata (DFAs) for each of the following languages. Throughout the exercise we assume the alphabet to be $\Sigma = \{0, 1\}$.

1. All strings containing 000 or 111 as *subsequences*
2. All strings *not* containing 000 *nor* 111 as subsequences
3. All strings where number of 0 s is divisible by 5
4. All strings with exactly two 1 and the number of 0 s is divisible by 5
5. All strings that are *binary representations* of nonnegative integers divisible by 5
6. All strings whose *reverses* are binary representations of nonnegative integers divisible by 5