Write down regular expressions for each of the following languages. Throughout the exercise we assume the alphabet to be $\Sigma = \{0, 1\}$.

1. All strings having 0 at the 39th position

2. All strings containing 000 or 111 as substrings

3. All strings containing 000 or 111 as *subsequences*

4. All strings *not* containing 000 *nor* 111 as substrings

5. All strings *not* containing 000 *nor* 111 as subsequences

6. All strings except for 000 and 111

7. All strings containing 000 *and* 111 as substrings

8. All strings that contains at least three 0s and two 1s

9. All strings with more 01s than 10s