Exercise 1

Each line of the input file contains the binary representation of some number. The problem is to compute the remainder of division of this number by 3 and write it to the corresponding line of the output file:

1. The program should read the input data from the file “input.txt”.
2. Each line of the input file is not empty and contains only zeroes and ones.
3. The length of each line of the input file is between 1 and 1000.
4. The program should write the output data to the file “output.txt”.
5. Each remainder should be written into a separate line of the output file.
6. **The file “CMakeLists.txt”, which is used to build the program, should be provided.**

Example:

Input file:
```
111
10111
1100
```

Output file:
```
1
2
0
```

In this example, the lines of the input file correspond to the numbers 7, 23, and 12. So the remainders are
7 mod 3 = 1,
23 mod 3 = 2,
12 mod 3 = 0.