# Extra Practice Q - T1

## Q1 Roman numeral

Define a function `toroman(int)` that takes in an integer and return its Roman numeral representation as a string. Then, In 5 seperate cells, run the function using the following values: `1994, 30, 2024, 888, 469`

## Q2 Morse Code

Read from the file `morse-code.json`, use its information to decode the message in `encryptedmsg.txt`, and save the decoded message to a new file named `decodedmsg.txt`

Note: every `" / "` in the `encryptedmsg.txt` represents a space in the decoded message

## Q3 Long String

(a). Read from the file `longstring.txt`, determine the length of the longest substring where all characters are unique.

Note 1: the string only contains characters a to z and A to Z
Note 2: treat upper and lower case letters as different characters

Examples:
`string="abcdeff"`: `answer = 6`
`string="helloworld"`: `answer = 5`

(b). Similar to the above, find the length of the longest substring where all characters appear at most 2 times.

Examples:
`string="aaabbcccdd"`: `answer = 6`
`string="helloworld"`: `answer = 8`