

2RETO 10 MARATON

Roman number is very useful number system. Often we need to convert a decimal number into Roman number. In Roman number the following symbol are used: I, V, X, L, C, D, M for 1, 5, 10, 50, 100, 500 y 1000 respectively.

Input

Quantity of decimal numbers to convert to Roman and each of the decimal system numbers

Output

Roman number equivalent

Example

Input:

4

15

245

455

690

Output:

IV

XV

CCXLV

CDLV

DCXC

Input:

2

18

345

Output:

II

XVIII

CCCXLV

Input:

3

500

124

248

Output:

III

D

CXXIV

CCXLVIII