#include <iostream>

#include <cstdlib>

#include <cmath>

#include <string>

using namespace std;

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char\*\* argv)

{ int n, th, hn, ten, un, i;

string rom;

cout <<"Enter n value";

cin >> n;

while(n!=0){

if ((n>=4000)||(n<=0)){

cout << "invaalid number";

}

else {

if(th>0){

th =n/1000;

cout<<"M";

th--;

n-=1000;

}

else if (hn>=100){

hn = (n%1000)/100;

switch (hn){

case 4:

cout<<"CD";

hn=0;

n-=400;

break;

case 9:

cout <<"CM";

hn=0;

n-=900;

break;

default:

if(hn>=5){

cout<< "D";

hn -=5;

n-=500;

}

else {

cout<<"C";

hn--;

n-=100;

}

}

}else if (ten>0){

ten = ((n%1000)%100)/10;

switch(ten){

case 4:

cout <<"XL";

ten = 0;

n-=40;

break;

case 9:

cout <<"XC";

ten = 0;

n-=90;

break;

default:

if(ten>=5){

cout <<"L";

ten-=5;

n-=50;

}

else {

cout<<"X";

ten--;

n-=10;

}

}

}else if(un>0){

un=(((n%1000)%100)%10);

switch(un){

case 9:

cout<<"IX";

un=0;

n-=9;

break;

case 4:

cout<<"IV";

un=0;

n-=4;

break;

default:

if(un>=5){

cout<<"V";

un-=5;

n-=5;

}else{

cout<<"I";

ten--;

n-=1;

}

}

}

}

}

system("PAUSE");

return 0;

}