// Task 1(a)

public class Task1a {

public static void main(String[] args) {

int a = 24;

while (a>=-6)

{

System.out.print(a+ ",");

a -=6;

}

}

}

// Task 1(b)

public class Task1b {

public static void main(String[] args) {

int a = -10;

while(a<=20)

{

System.out.print(a+",");

a+=5;

}

}

}

// Task 2

import java.util.Scanner;

public class Task2 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of numbers");

int N = sc.nextInt();

double sum = 0;

for(int a = 1;N>=a;a++)

{

System.out.println("Enter number");

double num = sc.nextDouble();

sum +=num;

}

System.out.println("The sum of "+N+" no is: " + sum);

System.out.println("The Average is: " + sum/N);

}

}

// Task 3

import java.util.Scanner;

public class Task3 {

public static void main(String[] args) {

Scanner sc = new Scanner (System.in);

for ( int a = 1;a>0;a++)

{

System.out.println("Enter Number: ");

int num = sc.nextInt();

if (num>=0)

{

System.out.println(num+" ^ 2 = "+num\*num);

}

else

{

break;

}

}

}

}

// Task 4

import java.util.Scanner;

public class Task4 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter an integer");

int actual\_num = sc.nextInt();

int num = actual\_num;

if (num<0)

{

num\*=-1;

}

System.out.println("Divisors of " + actual\_num + ":");

for (int a = 1; a <= num; a++)

if (num % a == 0)

{

System.out.println(a);

}

}

}

// Task 5

import java.util.Scanner;

public class Task5 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter an integer:");

int num = sc.nextInt();

int positive = 0;

int negative = 0;

for (int a=1;a<=num;a++)

{

System.out.println("Enter number "+a);

double input\_num= sc.nextDouble();

if (input\_num>0 || input\_num==0)

{

positive++;

}

else

{

negative++;

}

}

System.out.println(positive+ " Non-negative Numbers");

System.out.println(negative+" Negative Numbers");

}

}

// Task 6

import java.util.Scanner;

public class Task6 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Input the number of terms: ");

int term = sc.nextInt();

int limit = term\*2;

int sum =0;

System.out.println("The odd numbers are:");

for ( int a =1;a<=limit;a+=2)

{

System.out.println(a);

sum +=a;

}

System.out.println("The Sum of odd Natural Numbers up to "+term+" terms is: "+sum);

}

}

// Task 7

import java.util.Scanner;

public class Task7 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int sum = 0;

for (int a = 0; a<10;a++)

{

System.out.println("Enter Number: ");

int num = sc.nextInt();

sum+=num;

System.out.println("Sum = "+sum);

}

}

}

// Task 8

import java.util.Scanner;

public class Task8 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter a positive number");

int num = sc.nextInt();

for( int a = 0; a<=num; a++)

{

if(a%5==0 && a%3!=0)

{

System.out.println(a);

}

}

}

}

// Task 9

import java.util.Scanner;

public class Task9 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter an integer value");

int integer = sc.nextInt();

if(integer<0)

{

integer\*=-1;

}

int sum = 0;

while (integer > 0)

{

sum++;

integer = integer / 10;

}

System.out.println("Total digits = " + sum);

}

}

// Task 10

import java.util.Scanner;

public class Task10 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter an integer value");

int integer = sc.nextInt();

if(integer<0)

{

integer\*=-1;

}

int input = integer;

int sum = 0;

while (input>0)

{

sum++;

input=input/10;

}

int divide = (int) Math.pow(10,(sum-1));

for(int x = divide;x>0;x=x/10)

{

int digit = integer/x;

System.out.print(digit +",");

integer=integer%x;

}

}

}

// Task 11 (a)

import java.util.Scanner;

public class Task11a {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter an integer");

int num = sc.nextInt();

int divisor = 0;

for ( int a = 1;a<=num;a++)

{

if(num%a==0)

{

divisor++;

}

}

if(divisor==2)

{

System.out.println("It is a prime number");

}

else

{

System.out.println("It is not a prime number");

}

}

}

// Task 11(b)

import java.util.Scanner;

public class Task11b {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter a number");

int num =sc.nextInt();

int sum = 0;

for(int a =1;a<num;a++)

{

if(num%a==0)

{

sum +=a;

}

}

if(sum==num)

{

System.out.println(num+" is a perfect number");

}

else

{

System.out.println(num+" is not a perfect number");

}

}