//example of java synchronized method

class Table{

synchronized void printTable(int a,int b){//synchronized method

int cnt,max=Integer.MIN\_VALUE,result=0;

// ArrayList<Integer> res= new ArrayList<>();

// ArrayList<Integer> arr= new ArrayList<>();

for(int i=a;i<=b;i++)

{

cnt=0;

for(int j=2;j<=i;j++)

{

if(i%j==0)

{

// arr.add(j);

cnt++;

}

}

if(cnt>max)

{

// res.clear();

result = i;

max = cnt;

// Iterator it = arr.iterator();

// while(it.hasNext())

// {

// res.add((Integer)it.next());

// }

}

// arr.clear();

}

// Iterator rt = res.iterator();

System.out.println("The number that has maximum number of divisors: "+result);

System.out.println("Count = "+max);

// System.out.println("The divisors are...");

// while(rt.hasNext())

// {

// System.out.print(rt.next()+" ");

// }

}

}

class MyThread extends Thread{

Table t;

int a,b;

MyThread(Table t,int a,int b){

this.t=t;

this.a=a;

this.b=b;

}

public void run(){

t.printTable(a,b);

}

public void callConstructor(Table t,int a,int b)

{

this(t,a,b);

}

}

public class TestSynchronization2{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

int value;

Table obj = new Table();//only one object

System.out.println("Enter the values: ");

value = sc.nextInt();

MyThread[] t=new MyThread[10];

//1000

kvalue = value/10; //100

int j=1,k=kvalue;

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

{

t[i].callConstructor(obj,j,k);

t[i].start();

j+=kvalue;//1 101

k+=kvalue;//100 200

}

}

}