import java.util.\*;

interface A

{

interface B

{

public int callMe(int sum);

}

}

public class koushik1 implements A

{

int fin1=0;

int sum=0;

public static void main(String args[])

{

Scanner in=new Scanner(System.in);

System.out.print("Enter the number to be tested as happy or not: ");

int num=in.nextInt();

System.out.println(num);

koushik1 p=new koushik1();

while(num>9)

{

System.out.println(p.callMe(num));

num=p.callMe(num);

}

if(num==1)

System.out.println("Its a happy number: ");

else

System.out.println("its unhappy : ");

}

public int callMe(int sum)

{

int j=sum;

int fin=0;

String temp=Integer.toString(sum);

int len=temp.length();

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

{

System.out.println("1:"+(int)Math.pow(sum%10,2));

fin=fin+(int)Math.pow(sum%10,2);

sum=sum/10;

}

sum=fin;

return sum;

}

}