

```
1 import java.util.*;
2 import java.io.*;
3 public class question74
4 {
5     int n;
6     boolean flag=false;
7     public void input()
8     {
9         Scanner sc=new Scanner(System.in);
10        System.out.println("Enter number:");
11        n=sc.nextInt();
12    }
13
14    public void calculate()
15    {
16        int square=0;
17        int digit=0;
18        for(int i=0;i<100;i++)
19        {
20            do{
21                digit=n%10;
22                square=square+digit*digit;
23                n=n/10;
24            }while(n!=0);
25
26            n=square;
27            square=0;
28            if(n==1)
29            {
30                flag=true;
31                break;
32            }
33        }
34    }
35
36
37    public void display()
38    {
39        if(flag==true)
40        {
41            System.out.println("Happy number");
42        }
43        else
44        {
45            System.out.println("Unhappy number");
46        }
47    }
48
49    public static void main(String[] args)
50    {
51        question74 ob=new question74();
52        ob.input();
53        ob.calculate();
54        ob.display();
55    }
56 }
```