https://course.acciojob.com/idle?question=be2b14d5-8ea8-4bc3-ab30-aa37c458f18d

- MEDIUM
- Max Score: 40 Points

Recursive Digit Sum

Given an integer, we need to find the super digit of the integer `n` which is concatenated `k` times.

We define super digit of an integer `n` using the following rules:

1. **If n has only 1 digit, then its super digit is `n`.**
2. **Otherwise, the super digit of `n` is equal to the super digit of the sum of the digits of `n`.**

Input Format

The first line contains two space separated integers, `n` and `k`.

Output Format

In a new line, print the the super digit of n repeated k times.

Example 1

Input:

```
148 1
```

Output:

```
4
```

Explanation:

```
Here n=148 and k=1 , so p=148

super_digit(p) = super_digit(148)
               = super_digit(1+4+8)
               = super_digit(13)
               = super_digit(1+3)
               = super_digit(4)
               = 4
```

Example 2

Input:

```
148 3
```

Output:

```
3
```

Explanation:

```
Here n=148 and k=3 , so p=148148148.

super_digit(p) = super_digit(148148148)
               = super_digit(1+4+8+1+4+8+1+4+8)
               = super_digit(39)
               = super_digit(3+9)
               = super_digit(12)
               = super_digit(1+2)
               = super_digit(3)
               = 3
```

Constraints:

```
1 <= |digits in n| <= 25

1 <= k <= 50
```

Topic Tags

- Recursion

- Strings

My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
  static String fun(String st)
  {
    if(st.length()==1) return st;
 int s=0;
    for(int i=0;i<st.length();i++)
      {
        char ch=st.charAt(i);
        s+=ch-'0';
      }
    return fun(String.valueOf(s));
  }

        public static void main (String[] args) throws
java.lang.Exception
        {
                //your code here
      Scanner s=new Scanner(System.in);
      String str=s.next();
```

```
        String st="";
        int n=s.nextInt();
        for(int i=0;i<n;i++)
          st+=str;
       System.out.print( fun(st));



         }
}
```