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Badge Progress (Details)

Points: 126   Rank: 270080

Modified Kaprekar Numbers 🔖

by PRASHANTB1984

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A modified *Kaprekar number* is a positive whole number n with d digits, such that when we split its square into two pieces - a right hand piece r with d digits and a left hand piece l that contains the remaining d or $d-1$ digits, the sum of the pieces is equal to the original number (i.e. $l + r = n$).

Note: r may have leading zeros.

Here's an explanation from Wikipedia about the **ORIGINAL** Kaprekar Number (spot the difference!): *In mathematics, a Kaprekar number for a given base is a non-negative integer, the representation of whose square in that base can be split into two parts that add up to the original number again. For instance, 45 is a Kaprekar number, because 45^2 = 2025 and 20+25 = 45.*

The Task
You are given the two positive integers p and q, where p is lower than q. Write a program to determine how many Kaprekar numbers are there in the range between p and q (both inclusive) and display them all.

Input Format

There will be two lines of input: p, lowest value q, highest value

Constraints:
$0 < p < q < 100000$

Output Format

Output each Kaprekar number in the given range, space-separated on a single line. If no Kaprekar numbers exist in the given range, print `INVALID RANGE`.

Sample Input

```
1
100
```

Sample Output

1 9 45 55 99

Explanation

1, 9, 45, 55, and 99 are the Kaprekar Numbers in the given range.

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Submissions:24678

Max Score:30
Difficulty: Easy

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Need Help?

Integer to Array

More

Current Buffer (saved locally, editable)   Java 7   ⌄

```java
1 ▼ import java.io.*;
2   import java.util.*;
3   import java.text.*;
4   import java.math.*;
5   import java.util.regex.*;
6
7 ▼ public class Solution {
8
9 ▼     public static void main(String[] args) {
10 ▼        /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11         }
12  }
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

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