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LIVE EVENTS

# Code Chronicles

Sep 10, 2018, 06:00 PM IST - Sep 13, 2018, 12:00 AM IST

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## Split Square Range

Max. Marks: 30

The challenge is over and this problem has been moved to practice area. You can either submit your solution here or [Go to Practice Area](#). Also further submissions won't affect the leaderboard.

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Find the positive whole numbers in a given range  $r$  to  $s$  ( $r$  is the lower limit and  $s$  is the upper limit) which fulfill the following criteria. When we square the whole number  $n$  containing  $d$  digits we end up having a number which either has  $(2xd)$  or  $(2xd)-1$  digits. Split the number into two parts. The right-hand part should be  $d$  digits long, the remaining is the left part. Add the two parts of the number to see if you get back the original number  $n$ .

Input:

Two integer values  $r$  and  $s$ 

Output:

Possible values separated by space.

Constraints:

$$1 \leq r < 10^5$$

$$1 \leq s < 10^5$$

SAMPLE INPUT

1  
100

SAMPLE OUTPUT



1 9 45 55 99

Explanation

Input :

1

100



**Output :**

1 9 45 55 99

$n = 1, d = 1, n^2 = 1$  left part = 1 right part = 0 sum = 1

$n = 9, d = 1, n^2 = 81$  left part = 8 right part = 1 sum = 9

$n = 45, d = 2, n^2 = 2025$  left part = 20 right part = 25 sum = 45

$n = 55, d = 2, n^2 = 3025$  left part = 30 right part = 25 sum = 55

$n = 99, d = 2, n^2 = 9801$  left part = 98 right part = 1 sum = 99

else INVALID RANGE

**Time Limit:** 5.0 sec(s) for each input file.

**Memory Limit:** 256 MB

**Source Limit:** 1024 KB

**Marking Scheme:** Marks are awarded if any testcase passes.

**Allowed Languages:** Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic

**CODE EDITOR**

Enter your code or [Upload your code](#) as file.

Save

Bash (GNU bash, version 4.3 ▼)



```
1 # Sample bash code
2
```

1:1

☒ Provide custom input

COMPILE & TEST

SUBMIT

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