

Rotating Sum

ZPRAC-16-17-LabExam-1_Session-2

[40 marks]

Provided integers l , n and k , your program should take an l digit positive integer (>0) as input, say stored in x . Then,

```
Repeat n times {  
    y <- Rotate digits of x by k places anti-clockwise  
    x <- x + y  
}  
Output x
```

Note that while rotating, the digits wrap around the edges. This means that when rotated by one step, the first digit becomes the last digit, and so on. The following example illustrates the entire algorithm described above.

Say $x = 466389$, $n = 2$, $k = 2$

Then,

Step 1 :

$x = 466389 + 638946 = 1105335$

Step 2 :

$x = 1105335 + 533511 = 1638846$

Therefore the final output should be : 1638846

Input format:

The first line of input contains 3 space separated integers l , n and k . The next line contains the l digit number.

Output format:

The accumulated sum. Note that you are not expected to print initial zeros in your output. For example, if the result from your calculations is of the form 001234, then simply print 1234.

The following example shows the format for input and output:

Input :

6 2 2

466389

Output :

1638846

Constraints :

$1 \leq l \leq 100$

$1 \leq n \leq 100$

$1 \leq k \leq 100$