Problem Solving and Programming

Day No - 16 ¶

Date - 14 May 2019

Day Objectives

1. Objective 1
2. Objective 2
3. Objective 3

Problem 1 :

Problem Statement

For a given integer N, find the total number of Non - Prime Factors in the range (1, N) (both exclusive) that do not contain the digit 0 nonPrimeFactorsCount(100) -> 2 nonPrimeFactorsCount(50) -> 1

Constraints

Test Cases

- Test Case 1
- Test Case 2
- Test Case 3

Explanation

- List of Factors in (1, N)
- isPrime(n) - > False
- containsZero(n) -> False

In [ ]:

Problem 1 :

Problem Statement

For a given integer N. Find the least positive integer X made up of only 9's and 0's, such that, X is a multiple of N. X is made up of one or more occurrences of 9 and zero or more occurrences of 0.

Constraints

Test Cases

Multiple(5) -> 90 Multiple (7) -> 9009 Multiple(1) -> 9

Explanation

For every value of X in the range(N*2, , N)

check90(n) -> True X % N == 0

In [ ]:

Problem 1 :

Problem Statement

Print the elements of the outer matrix for a given matrix

Constraints

Test Cases

- outerMatrix([[1,2,3], [4,5,6], [7,8,9]] -> 1 2 3 6 9 8 7 4
- Test Case 2
- Test Case 3

Explanation

N x M 3 x 4

1 2 3 4 5 6 7 8 9 10 11 12

1 2 3 10 11 12 9 8 7 4

for(i = 0; i < M; i++) print a[0][i]

In [27]:
```
def rowPrint(a, r, rs, nc):
    for i in range(rs, nc):
        print(a[r][i], end = ' ')

def columnPrint(a, c, cs, nr):
    for i in range(cs, nr):
        print(a[i][c], end = ' ')

def reverseRowPrint(a, r, rs, nc):
    for i in range(nc-rs-1, -1, -1):
        print(a[r][i], end = ' ')

def reverseColumnPrint(a, c, cstr, cstp, nr):
    for i in range(nr-1-cstr, cstp, -1):
        print(a[i][c], end = ' ')

def outerMatrix(m1, nr, nc):

    rowPrint(m1, 0, 0, nc)
    columnPrint(m1, nc-1, 1, nr)
    reverseRowPrint(m1, nr-1, nc-2, nc)
    reverseColumnPrint(m1, 0, nr-3, 0, nr)



m1 = [[1,2,3], [4,5,6], [7,8,9], [10, 11, 12]]

#rowPrint(m1, 1, 3)
#columnPrint(m1, 2, 3)
#reverseRowPrint(m1, 2, 3)
#reverseColumnPrint(m1, 0, 1, 3)
outerMatrix(m1, 4, 3)
```

```
1 2 3 6 9 12 11 10 7 4
```

In [ ]:

Problem 1 :

Problem Statement

Constraints

Test Cases

- Test Case 1
- Test Case 2
- Test Case 3

In [ ]:

In [ ]:

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