Spiral Matrix

Example 2:

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

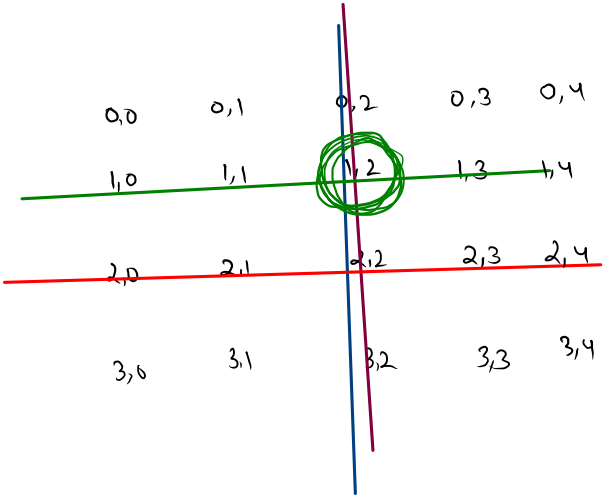
```
Input: matrix = [[1,2,3,4],[5,6,7,8],[9,10,11,12]]
Output: [1,2,3,4,8,12,11,10,9,5,6,7]
```

minr = 0

maxr = 3

minc = 0

maxc = 4



row = 0

col = 0 1 2 3 4

row = 0 → minr

col = (minc → maxc)

col → maxc

row → minr → maxr

row = maxr

col → maxc → minc

col = minc

row → maxr → minr

String

s → "aman"
0 1 2 3

s.charAt(idx)

s.charAt(1); ⟶ 'm'

length

s.length()

substring

1 parameter

s.substring(1);

⟶ "man"

2 parameter

s.substring(0,2)

[0, 2)

⇓

[0, 1]

"am"

string palindrome.

s → a b b c c d d e d d c c b b a

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

i j

2 pointer

$$'F' - 'A' = 'f' - 'a'$$

$$\boxed{CH - 'A' = ch - 'a'} \quad \text{--- (1)}$$

'F' using eq (1)

$$\boxed{ch = CH - 'A' + 'a'}$$

$$\hookrightarrow f = \boxed{('F' - 'A' + 'a')}$$

Prime or not ?

prime < 1 , self

factor count > 2 → not prime.

17

loop.

[2 , 16]

↳ factor exists.) not prime

17 % 2 17 % 3 17 % 4 .... 17 % 16

== 0 factor ++