$x = 0.1$

$y = 0.3$

print(y - (3 * x))

$= -e^{-}$

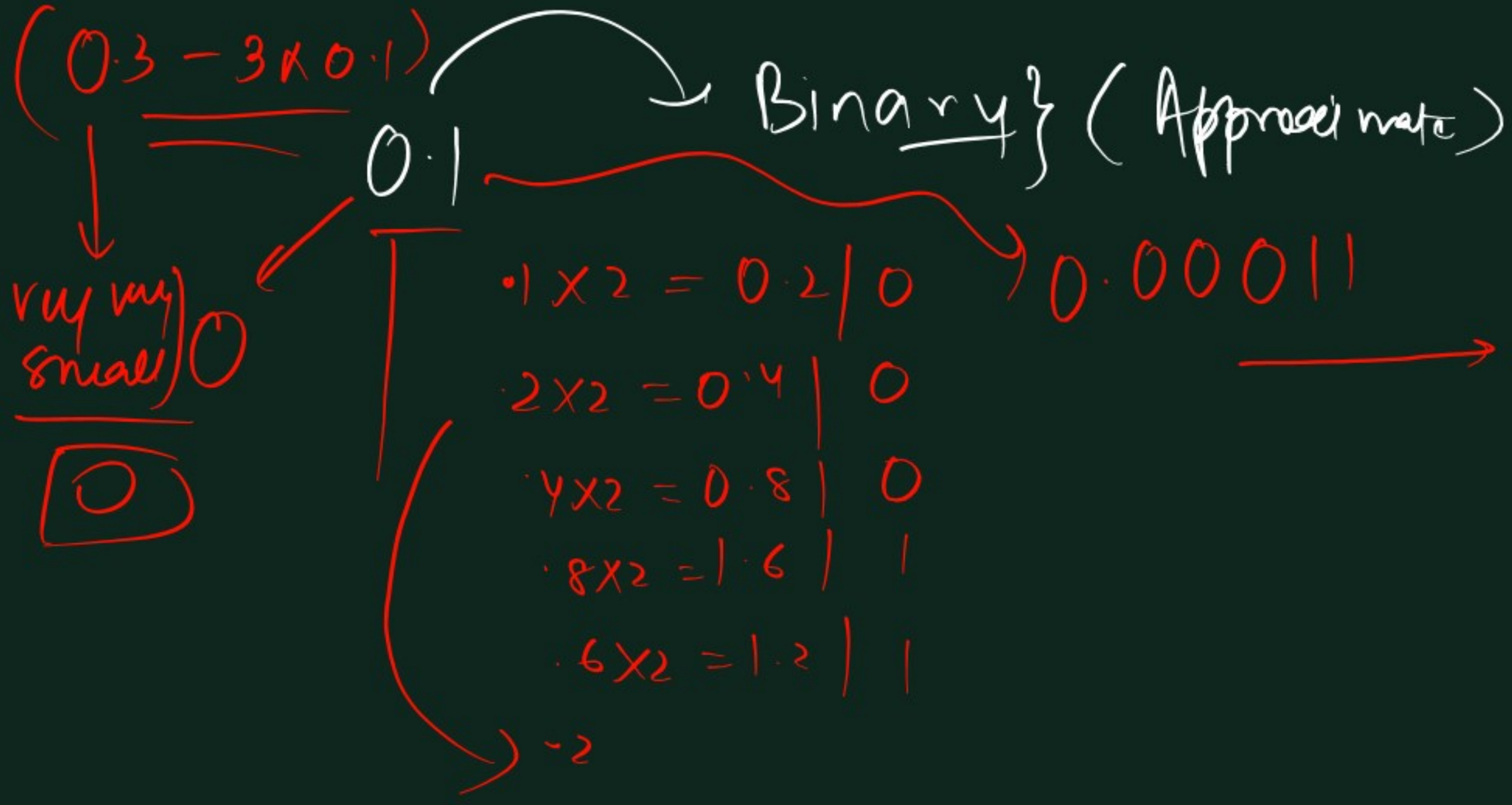
$\frac{10}{5}$

$x = 0.25$

$y = 0.50$

print(y - 2 * x)

$= 0.0$

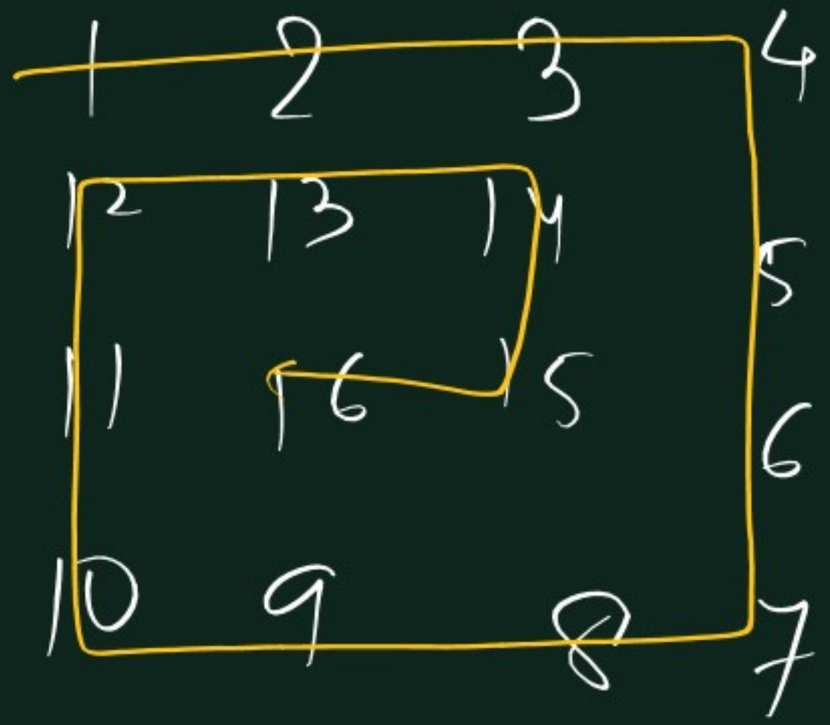

(0.3 - 3 x 0.1)
0.1
Binary (Approximate)
very very small 0
0
0.1 x 2 = 0.2 | 0
.2 x 2 = 0.4 | 0
.4 x 2 = 0.8 | 0
.8 x 2 = 1.6 | 1
.6 x 2 = 1.2 | 1
-2
0.00011

$1 - 4 \times 025 = 0.0$

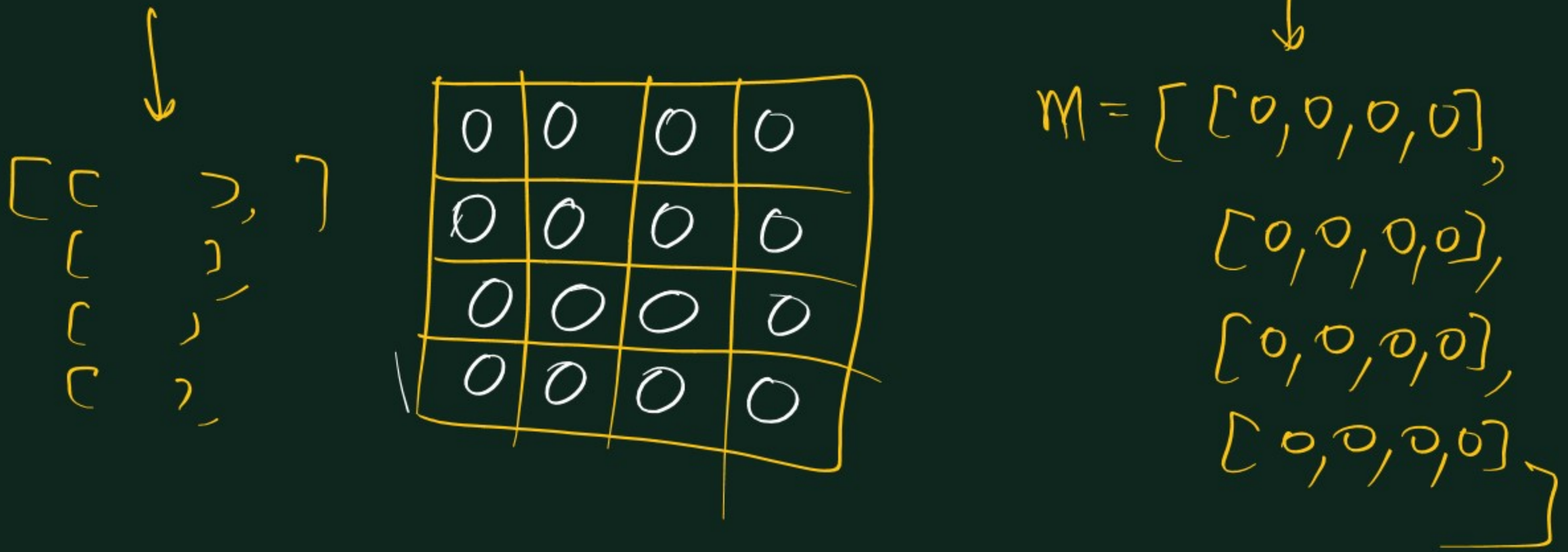
0.25

$0.25 \times 2 = 0.5 \mid 0$

$0.5 \times 2 = 1.0 \mid 1$



Google
MS
Amazon


[[ ],
[ ],
[ ],
[ ]]
0 0 0 0
0 0 0 0
0 0 0 0
0 0 0 0
m = [[0,0,0,0],
[0,0,0,0],
[0,0,0,0],
[0,0,0,0]]

row1 = 4 → 3 2 1 0

column1 = 4 → 3 2 1

count = 1

① L → R
set the values in the 1st row

② T - B

③ R - L

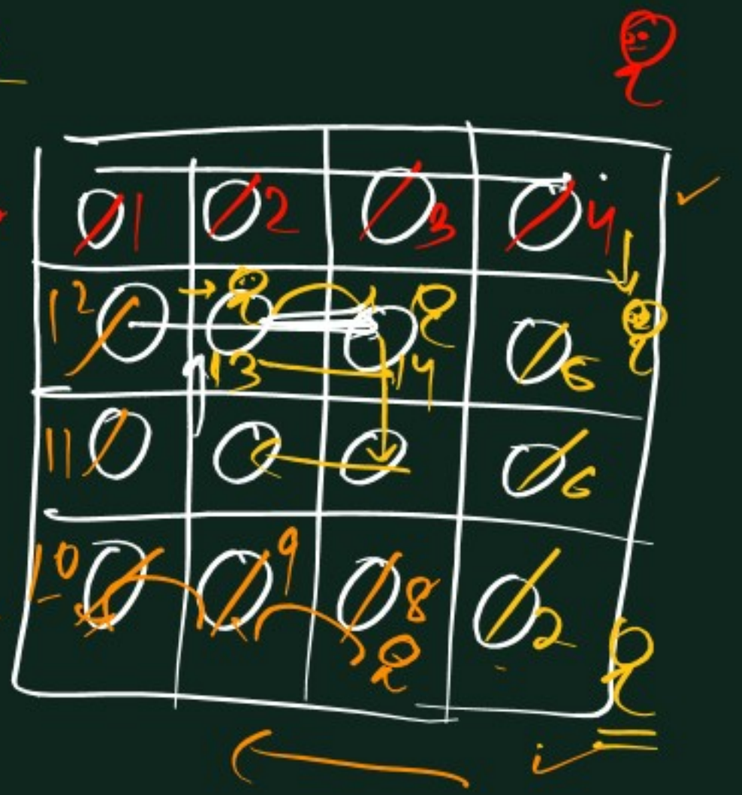
④ B - T

→ Repeat inner circle

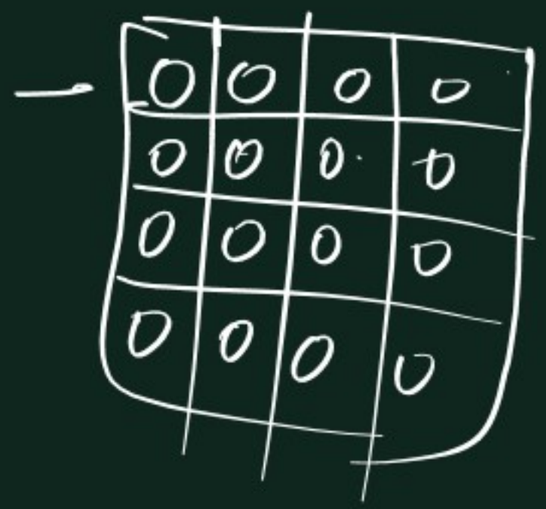
(L - R)

T - B

R - L



Matrix = [[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0]]



rows, cols = 4, 4

while(rows >= 0 and cols > 0)

L-R

T-B

R-L

B-T

rows = 4 | col = 4

count = 1
i = 0, j = 0

while (rows > 0 and cols > 0):

L → R ? jump < cols

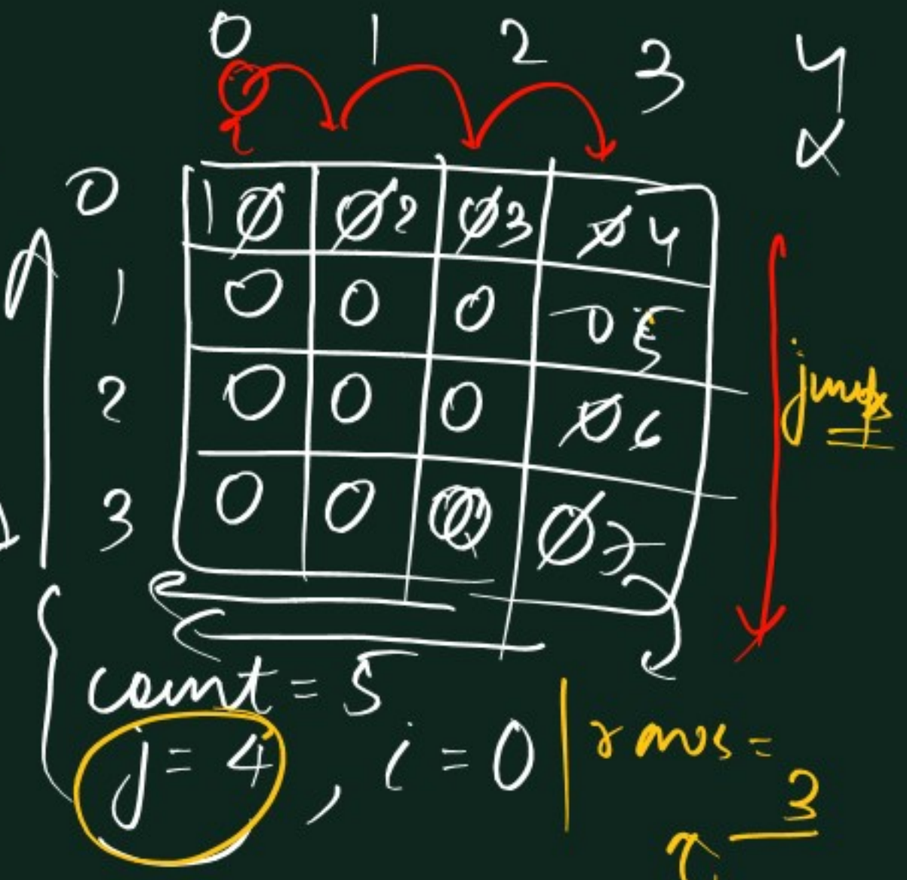
jump = 0

{ while (jump < cols):

m[i][j] = count

count += 1

j += 1 jump += 1



T → B rows -= 1, j = 1, i += 1

jump = 0 { while (jump < rows):

m[i][j] = count, count += 1, jump += 1

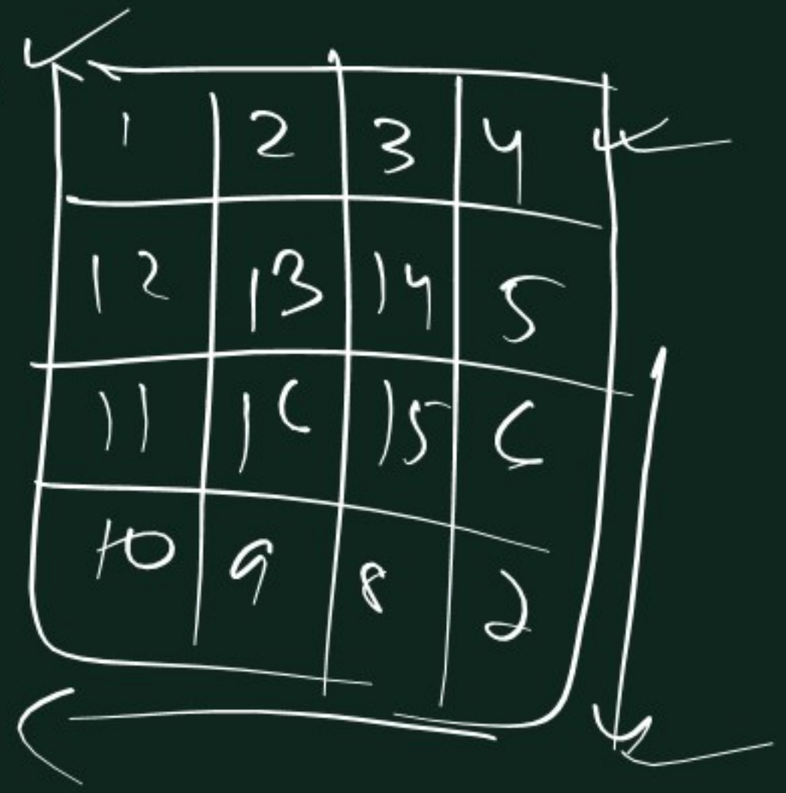
i += 1

col = 3, i = 4 j = 3

i = 1, j = 1

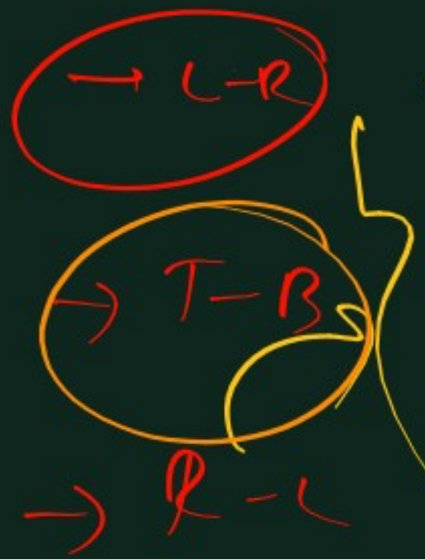
R = 4 3 2 1 0

C = 4 3 2 1

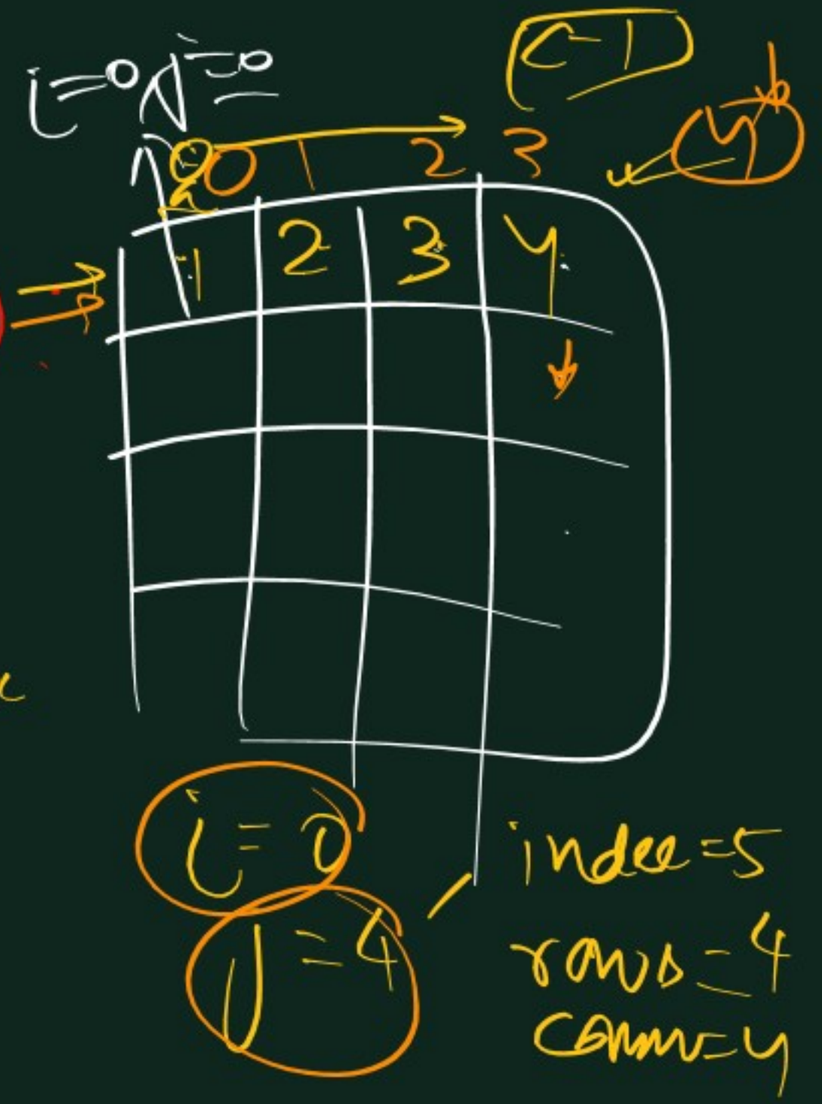


i=0, j=0, index=1

while(rows>0 and cols>0)



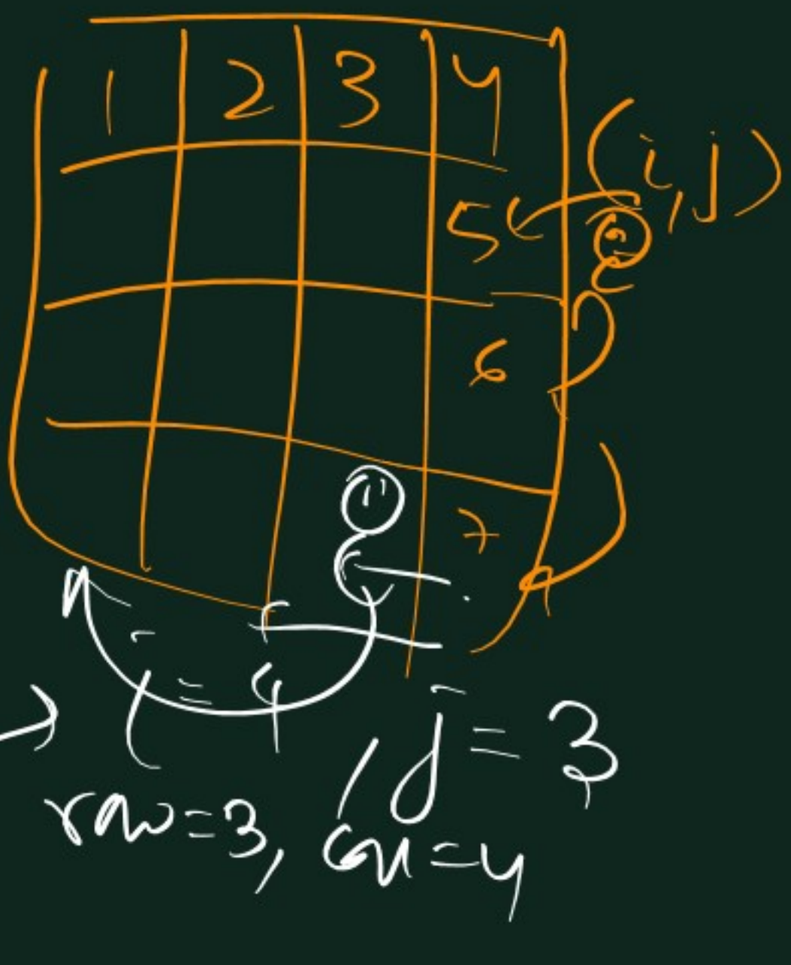

```
jump = 0
while(jump < col):
    m[i][j] = index
    jump += 1
    index += 1
    j += 1
row -= 1
i += 1
j -= 1
```

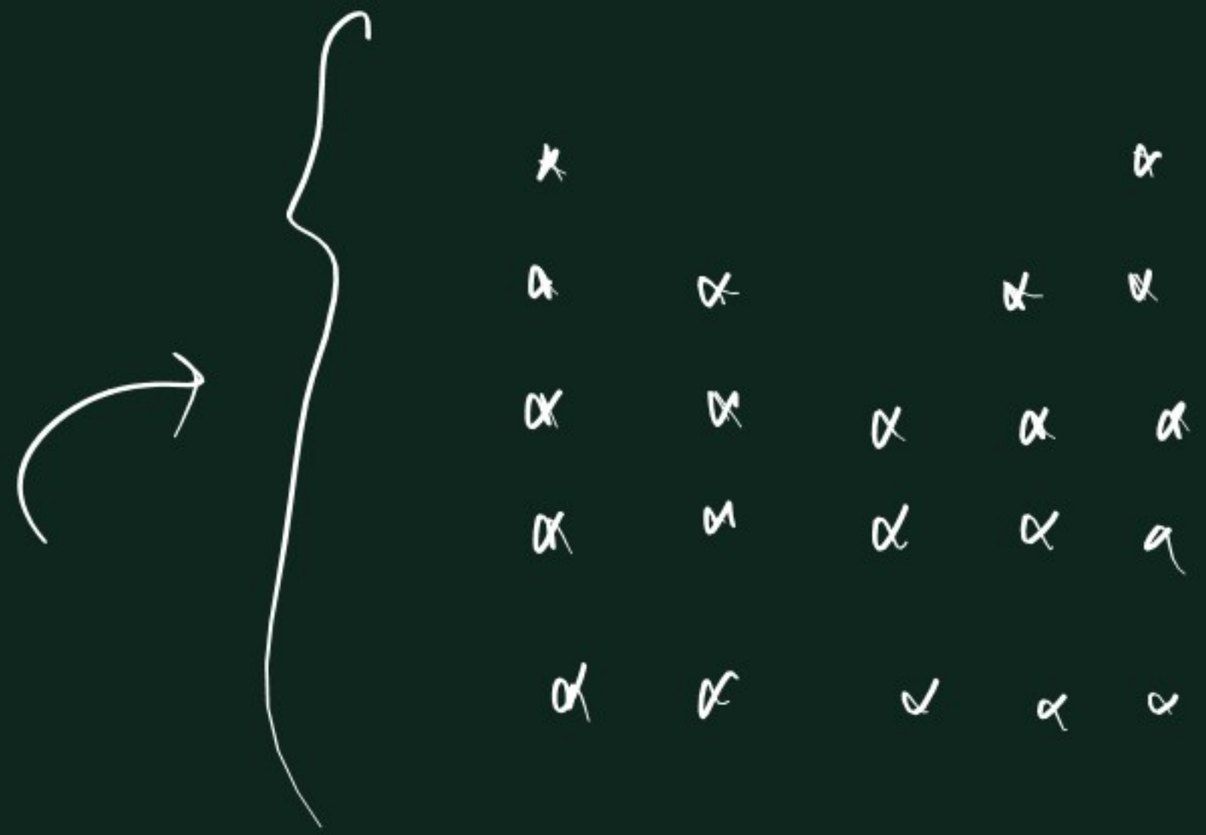


```
jump = 0
while( jump < row ):
    mat[i][j] = index
    index += 1 / jump += 1
    i += 1
col -= 1
i -= 1
j -= 1
```

row = 3

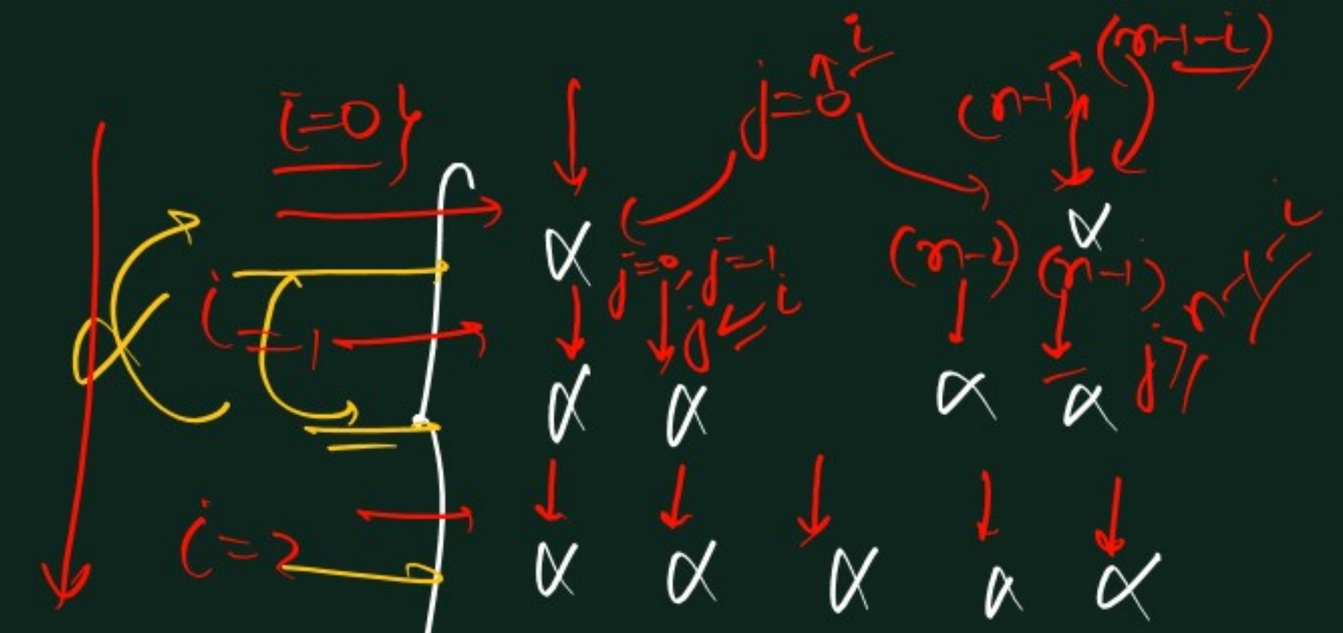
jump = row - 1 = 2



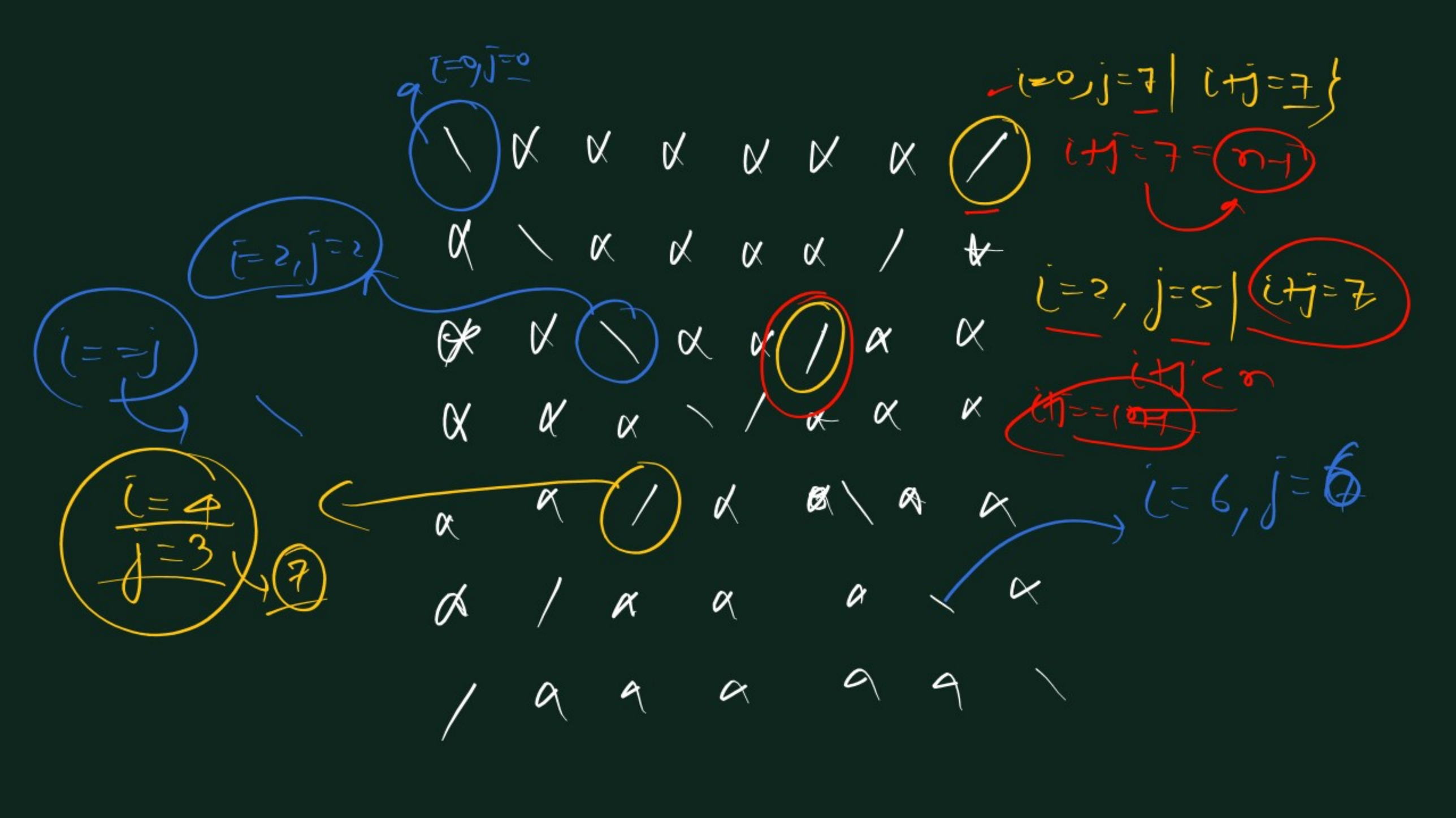


```
print('α', end='')
print()
```

```
for i in range(5):
    ( logic remaining )
    for j in range(5)
        if ( j<=i or j>=n-1-i)
            print('*', end='')
        else
            print(' ', end='')
    print()
```



5×5


i=0, j=0
i=0, j=7 | i+j=7
i+j=7 = n-1
i=2, j=2
i=2, j=5 | i+j=7
i==j
i+j<n
i+j==n-1
i=4
j=3
7
i=6, j=6

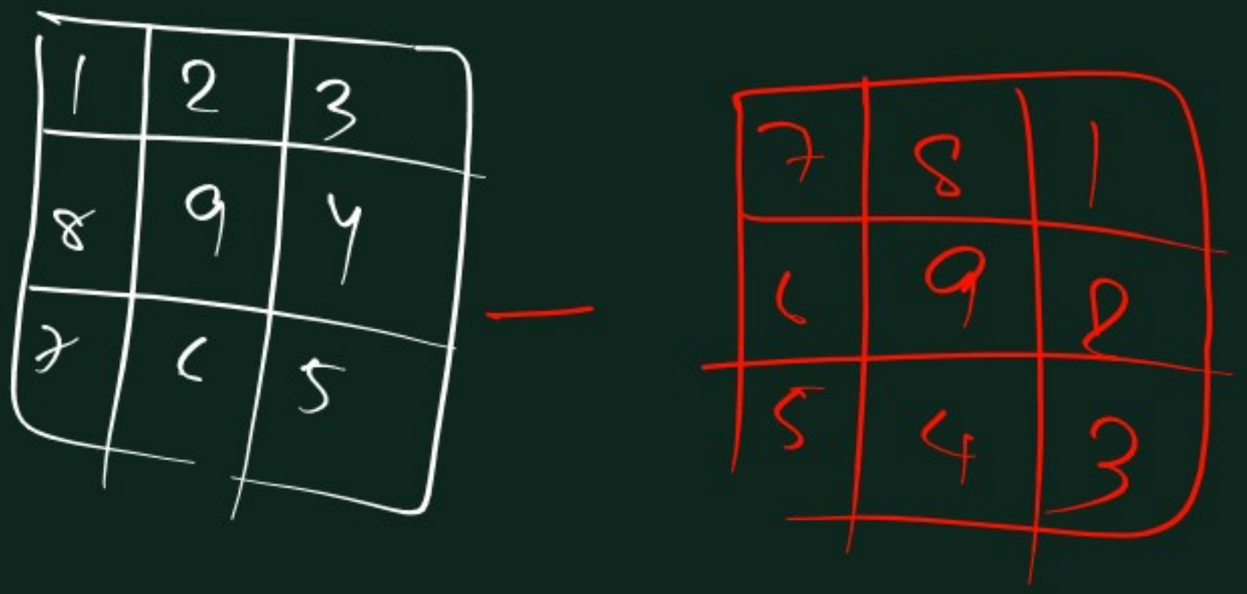
```
for i in range(n):
    for j in range(n):
        if i==j or i+j==n-1:
            if i==j
                print("\", end='')
            else
                print('/', end='')
        else
            print()
```

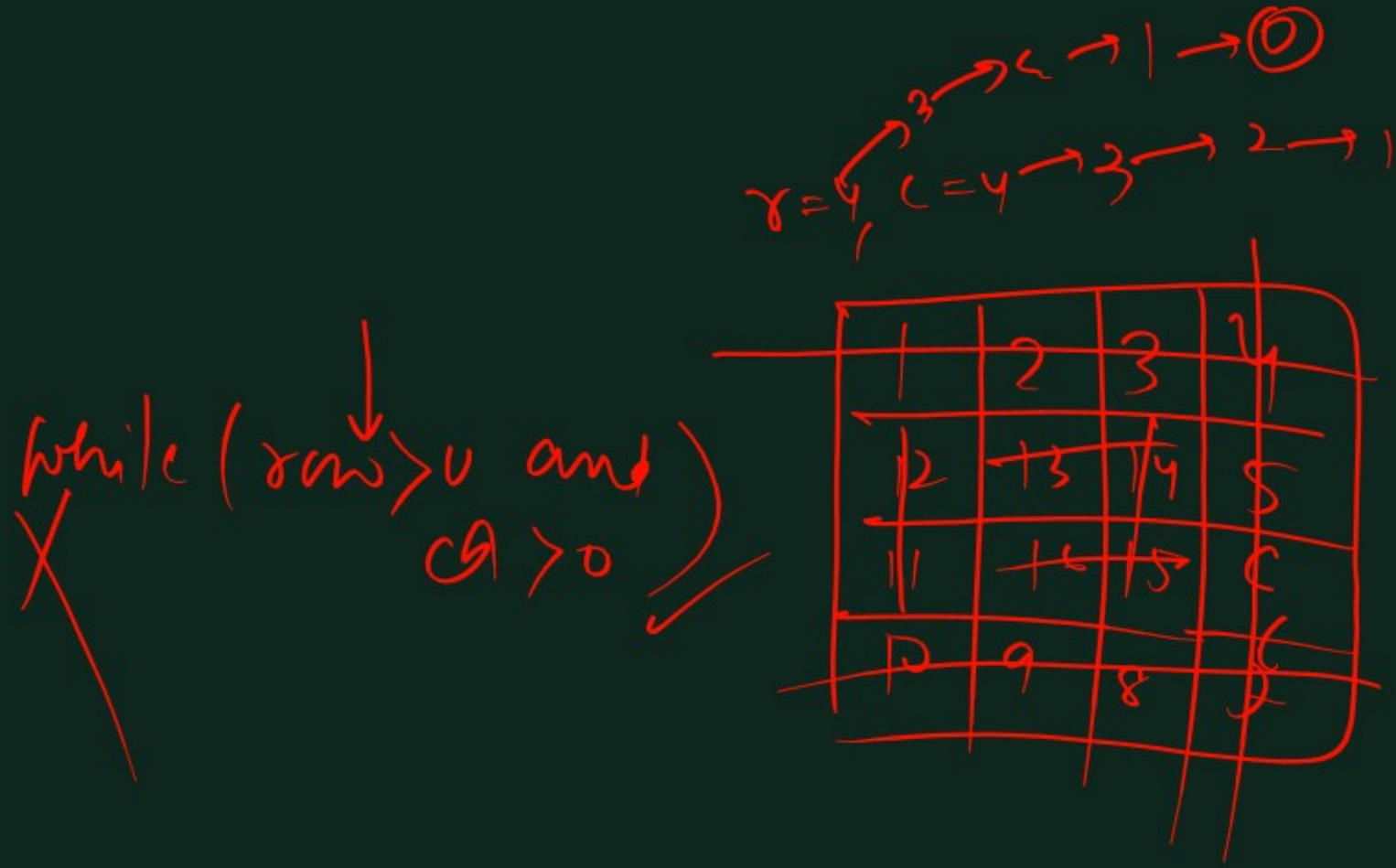
n x n

↓ (3 x 3)

rotate by 90°

Google | Ms | Am




r=4 → 3 → 2 → 1 → 0
c=4 → 3 → 2 → 1
while (row > 0 and
col > 0)
1 2 3 4
12 13 14 15
11 10 9 8