

ROTTING ORANGES.

	0	1	2
0			
1			
2			

	0	1	2
0			
1			
2			

0 : EMPTY

1 : FRESH

2 : ROTTEN



$t = 0$

rotten = (0,0)

q [(0,0)]

$t = 1$

(0,0) → (0,1)
 → (1,0)

current = (0,0)

q [(0,1), (1,0)]

	0	1	2
0			
1			
2			

AT EACH CLOCK TICK, INFECTED ORANGES, INFECT THEIR NEIGHBORS IF NOT ALREADY INFECTED.

$t = 2$

(0,0) → (0,1) → (0,2)
 → (1,0) → (1,1) ← same
 → (1,1) ← same

current = (0,1)

q [(1,0), (0,2), (1,1)]

current = (1,0)

q [(0,2), (1,1), (1,1)]

	0	1	2
0			
1			
2			

$t = 3$

(0,0) → (0,1) → (0,2)
 → (1,0) → (1,1) → (2,1)
 → (1,1)

current = (0,2)

q [(1,1), (1,1)]

current = (1,1)

q [(1,1), (2,1)]

current = (1,1) already processed.

q [(2,1)]

	0	1	2
0			
1			
2			

$t = 4$

current = (2,1)

q [(2,2)]

WHAT DO WE TRACK:

- FRESH ORANGES
- TIME
- QUEUE HAS ROTTEN ORANGES.