

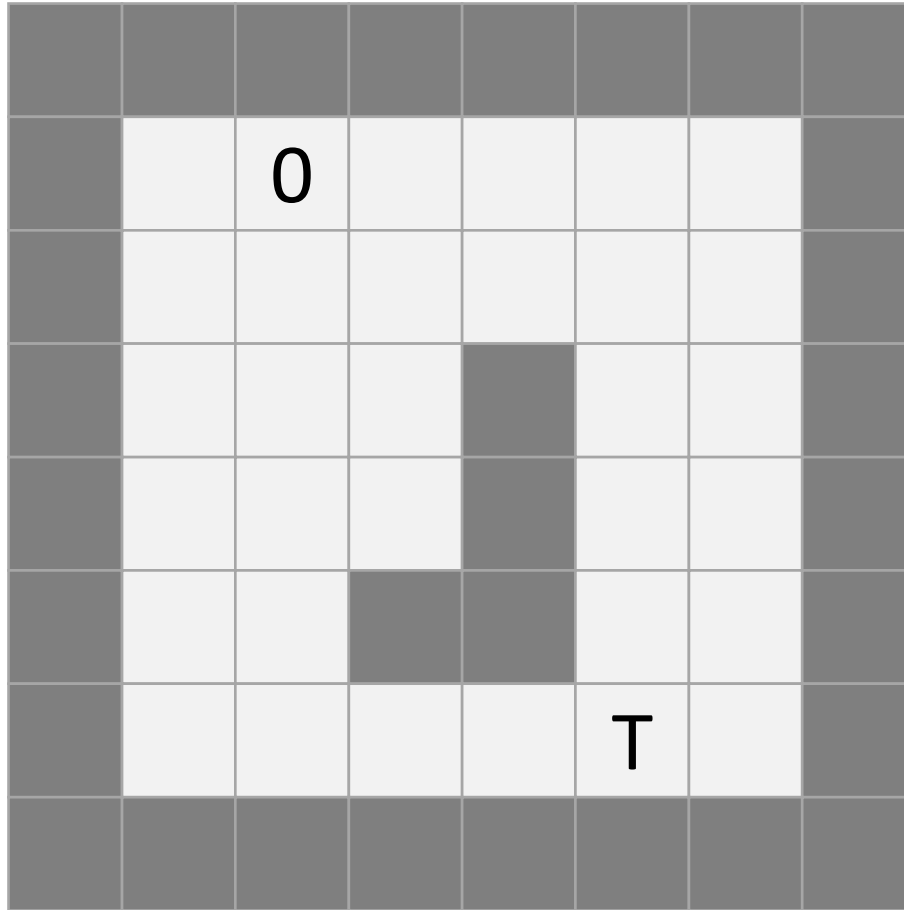
Shortest Path Problem

Slow Version

Slow Version

Path Length

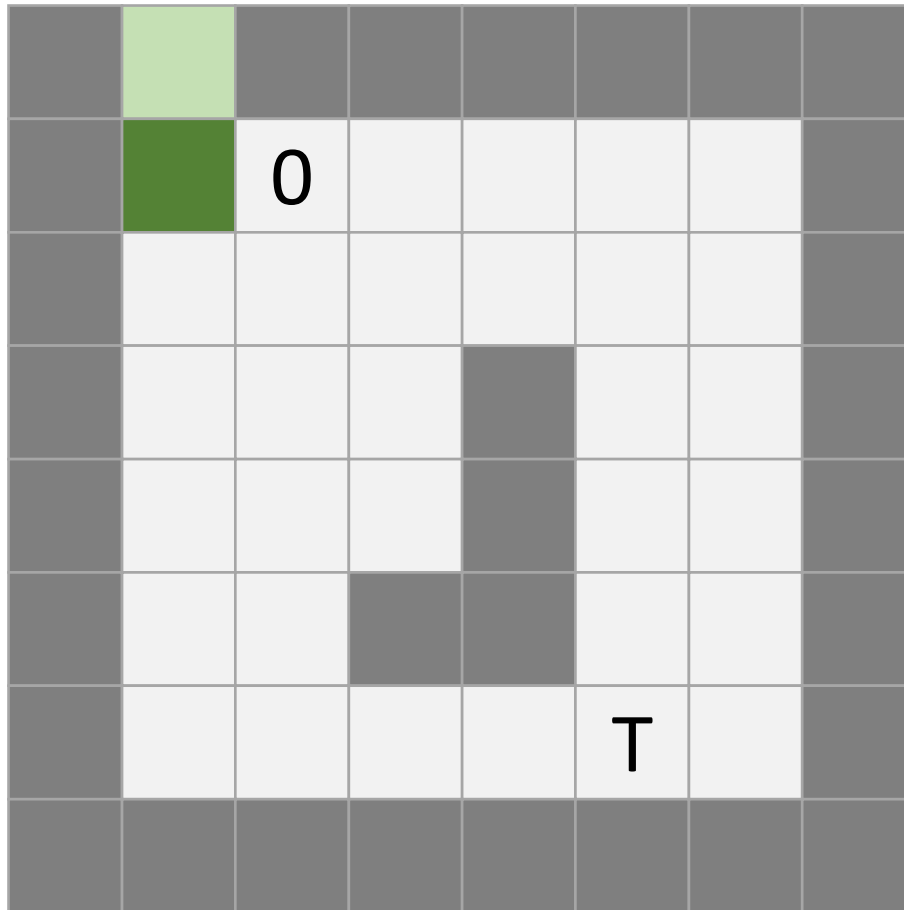
$i = 1$



Slow Version

Path Length

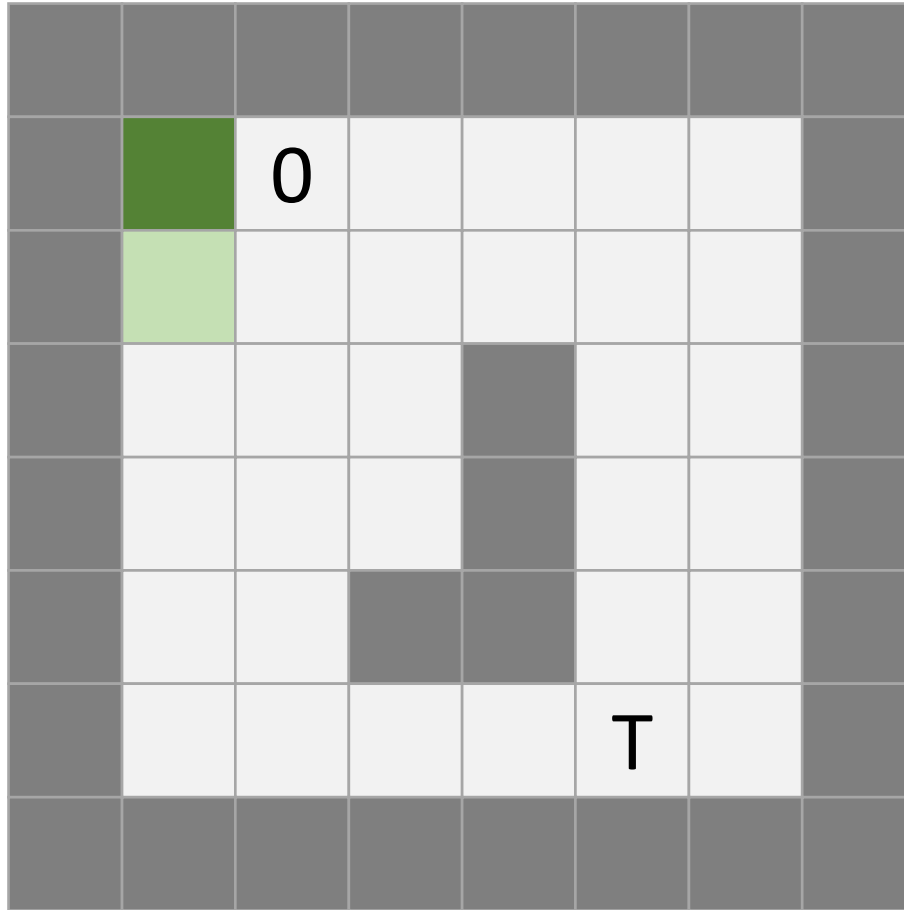
$i = 1$



Slow Version

Path Length

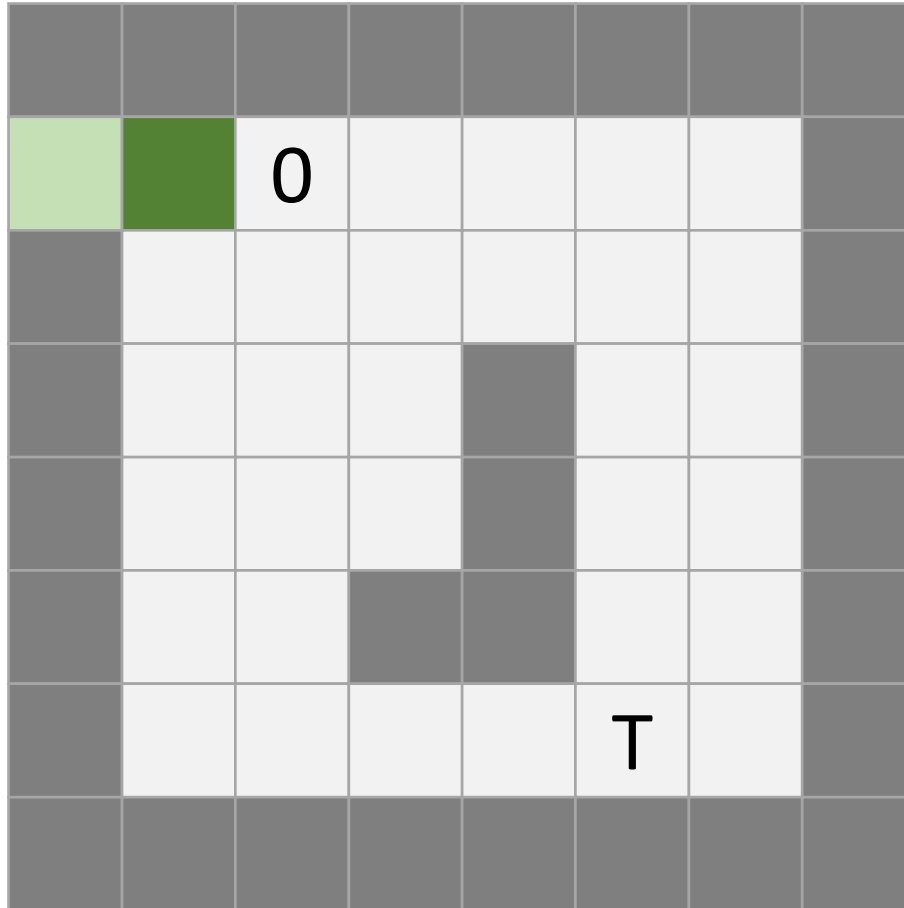
$i = 1$



Slow Version

Path Length

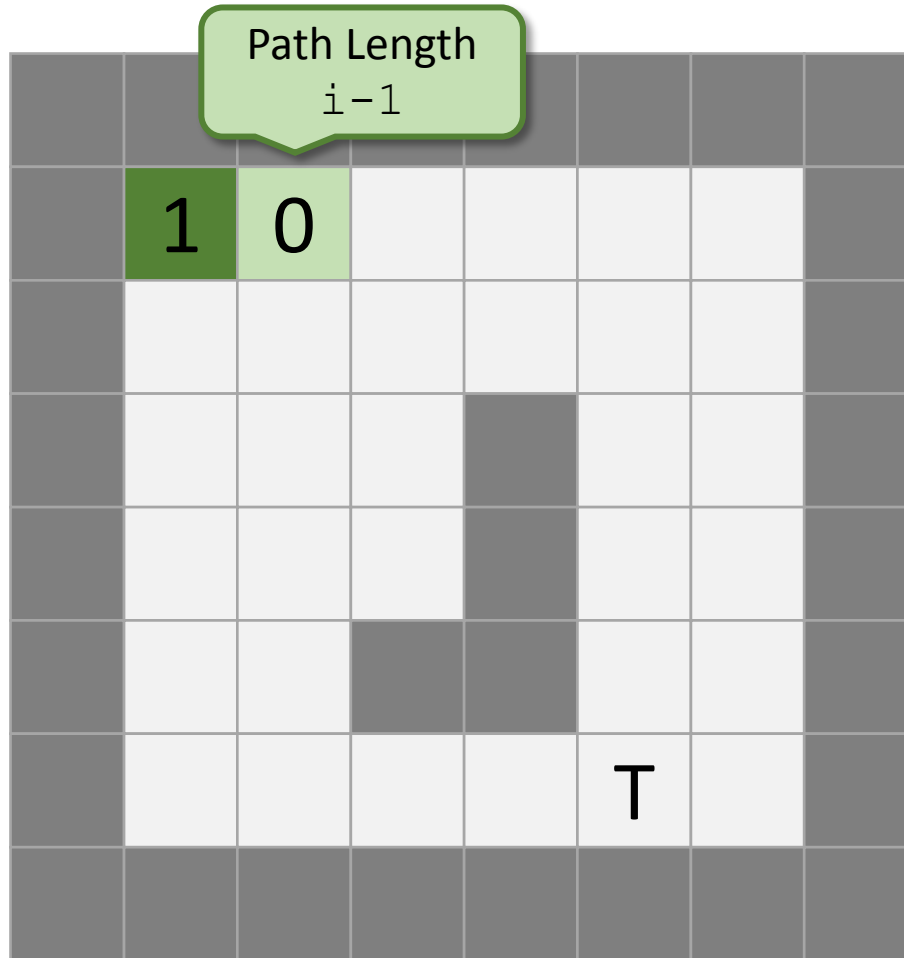
$i = 1$



Slow Version

Path Length

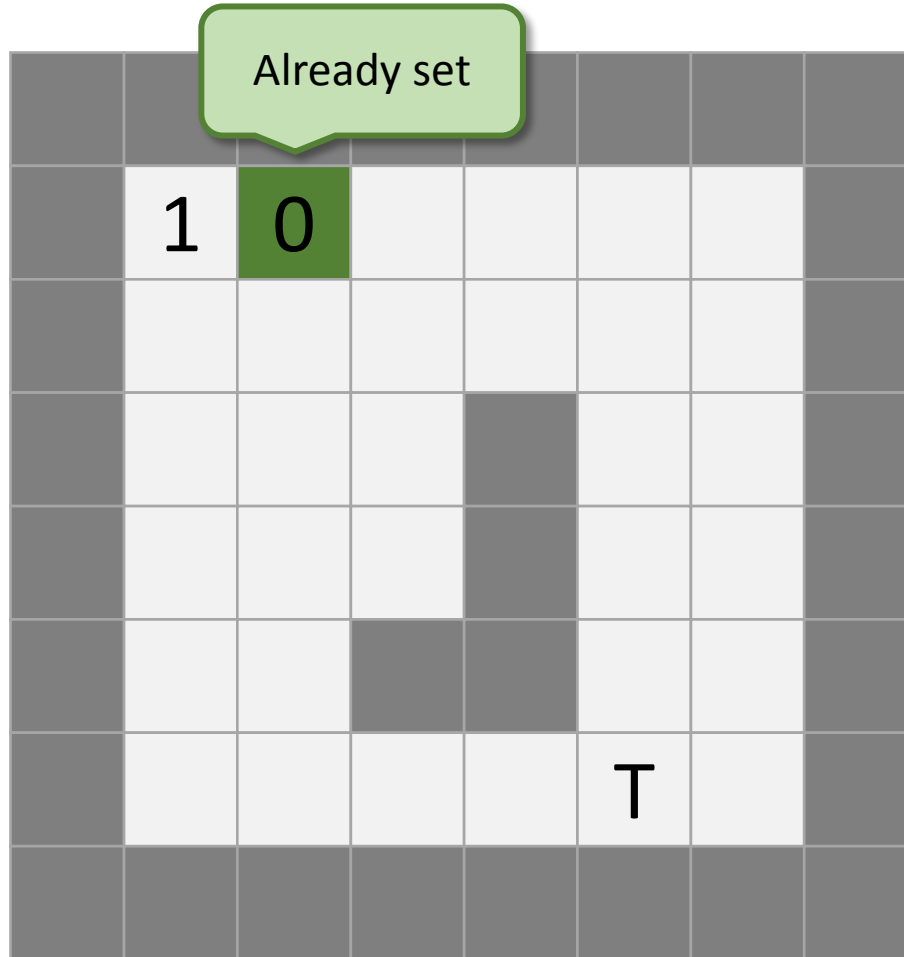
$i = 1$



Slow Version

Path Length

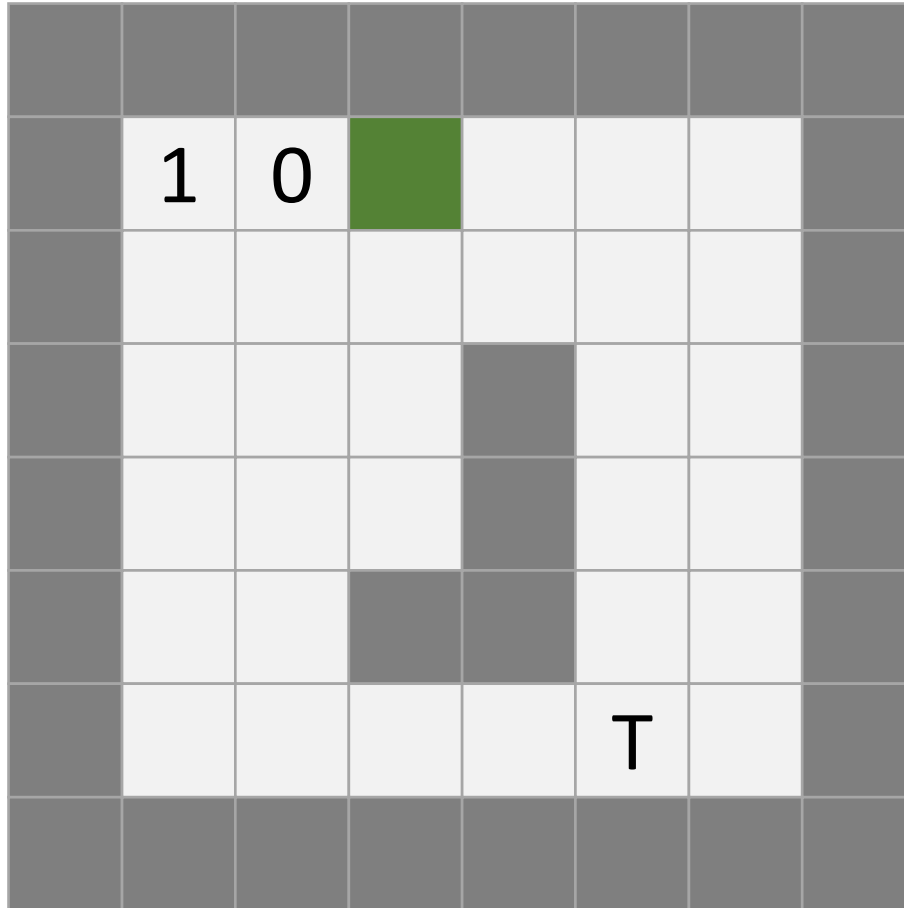
$i = 1$



Slow Version

Path Length

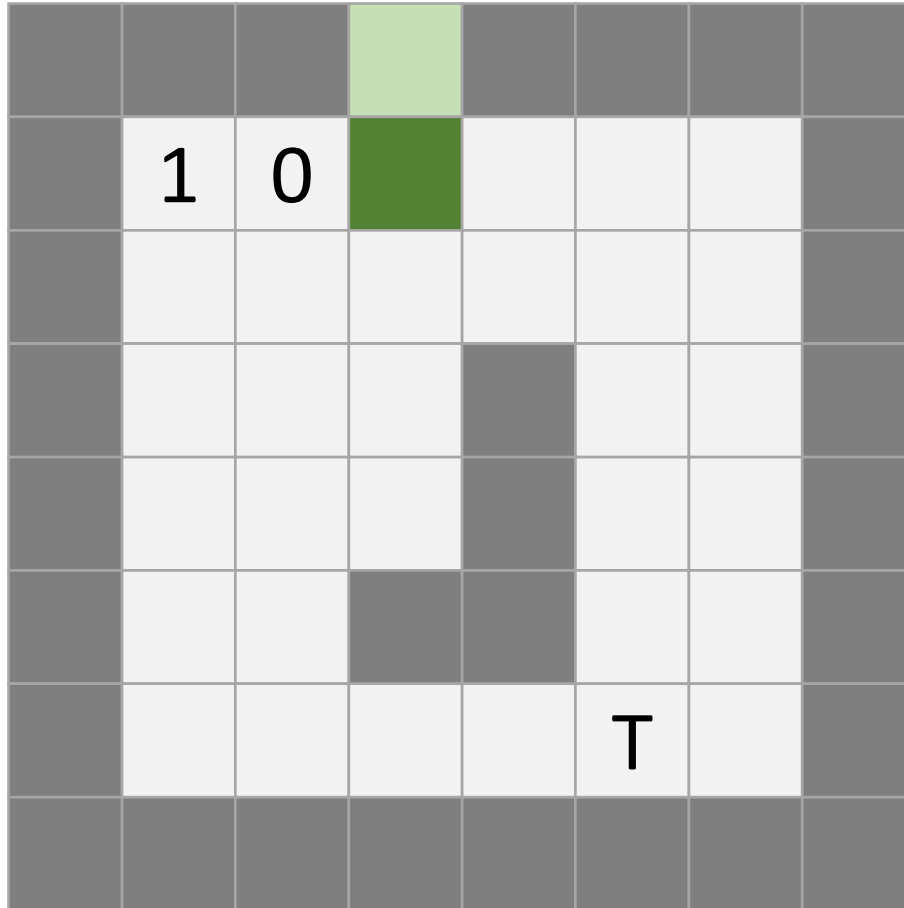
$i = 1$



Slow Version

Path Length

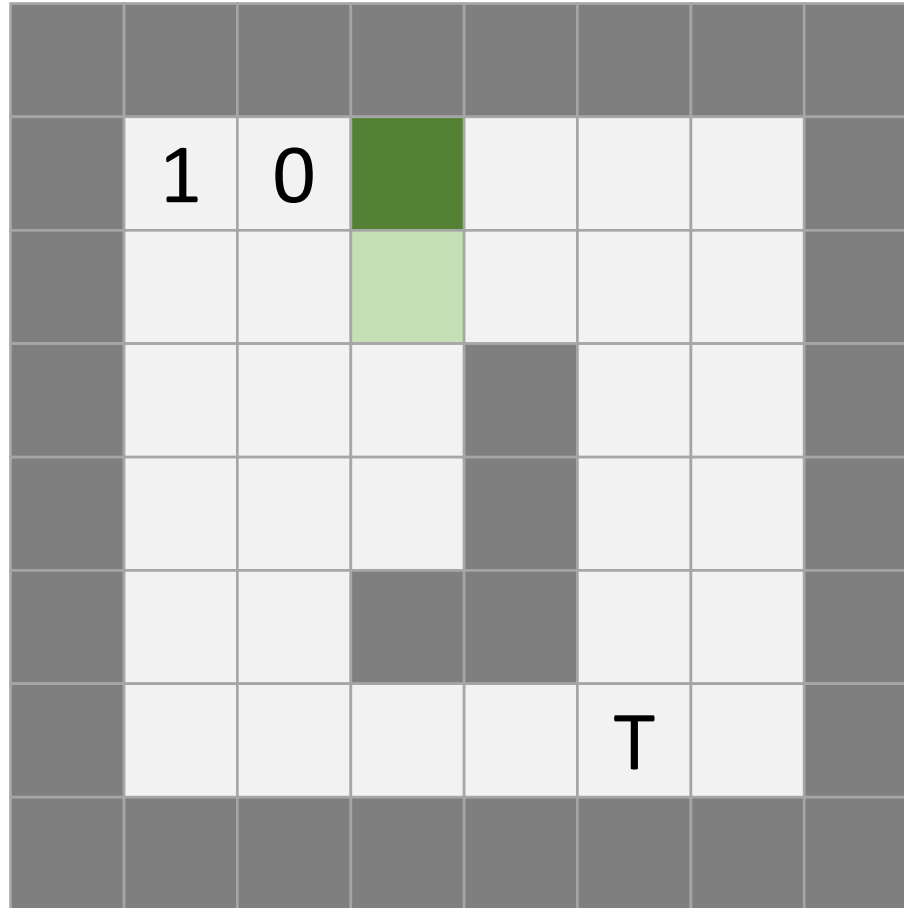
$i = 1$



Slow Version

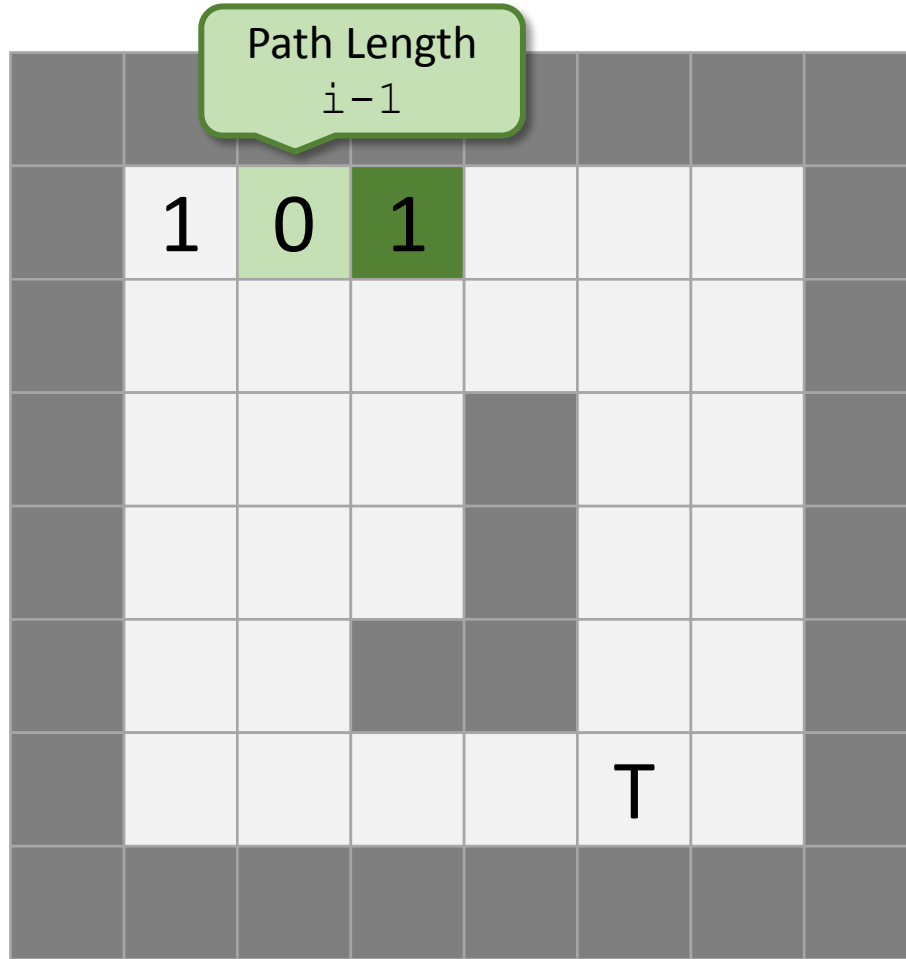
Path Length

$i = 1$



Slow Version

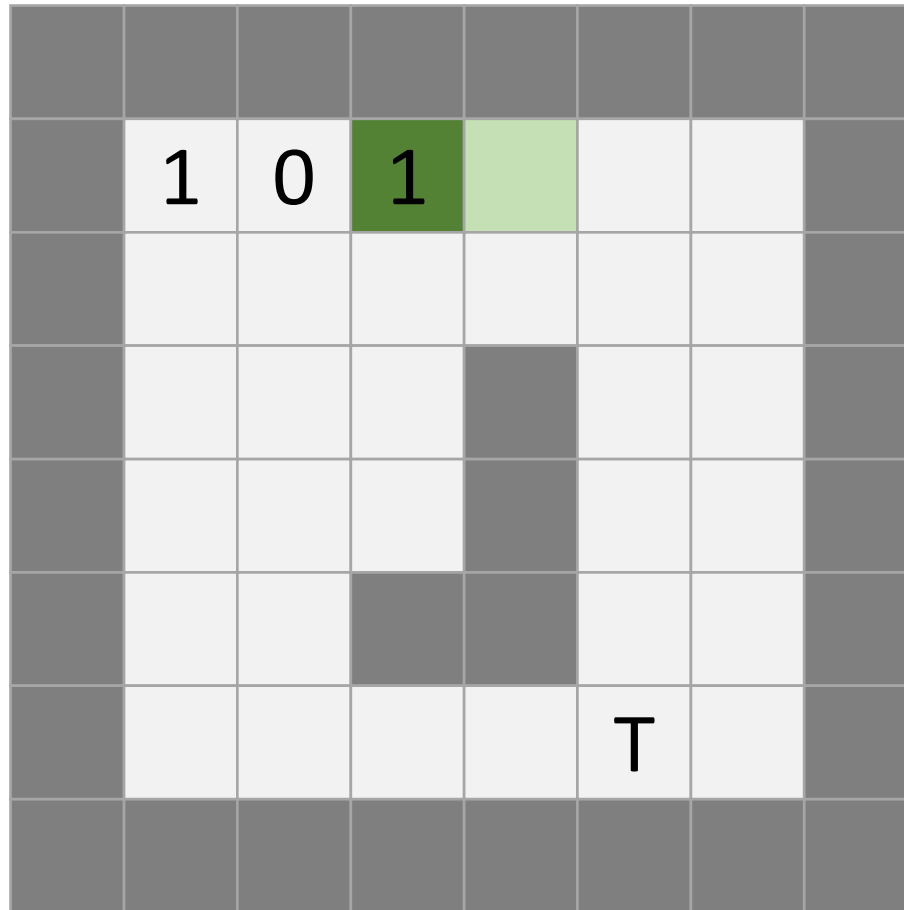
Path Length
 $i = 1$



Slow Version

Path Length

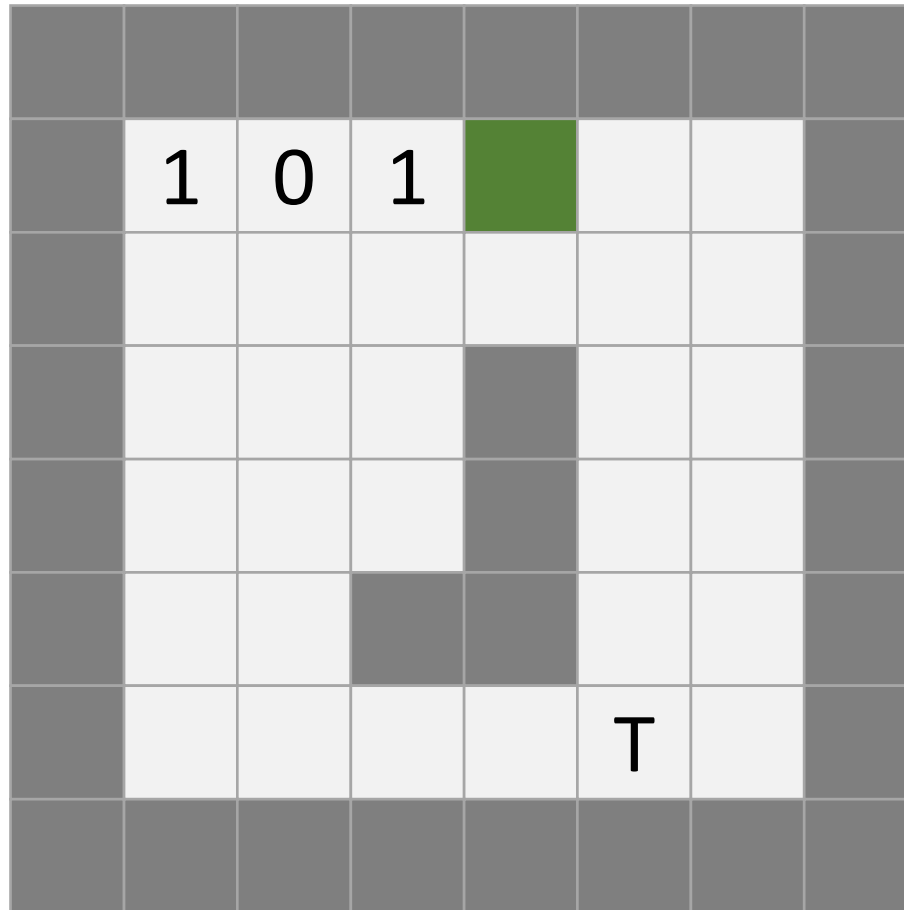
$i = 1$



Slow Version

Path Length

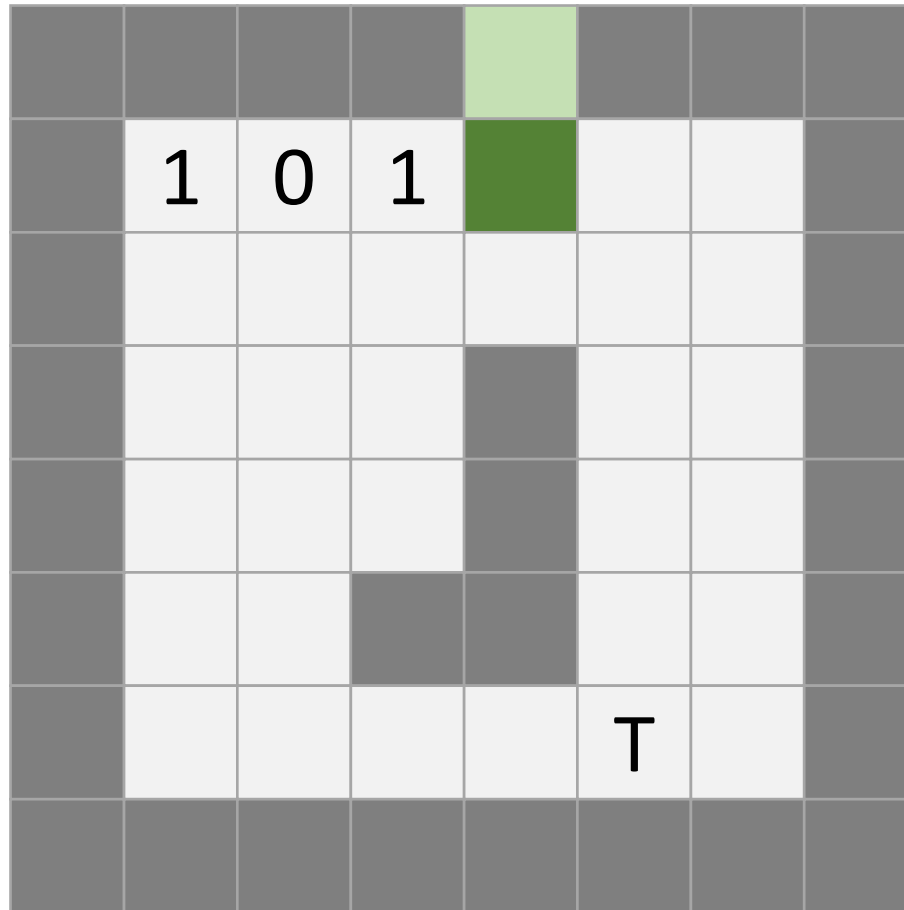
$i = 1$



Slow Version

Path Length

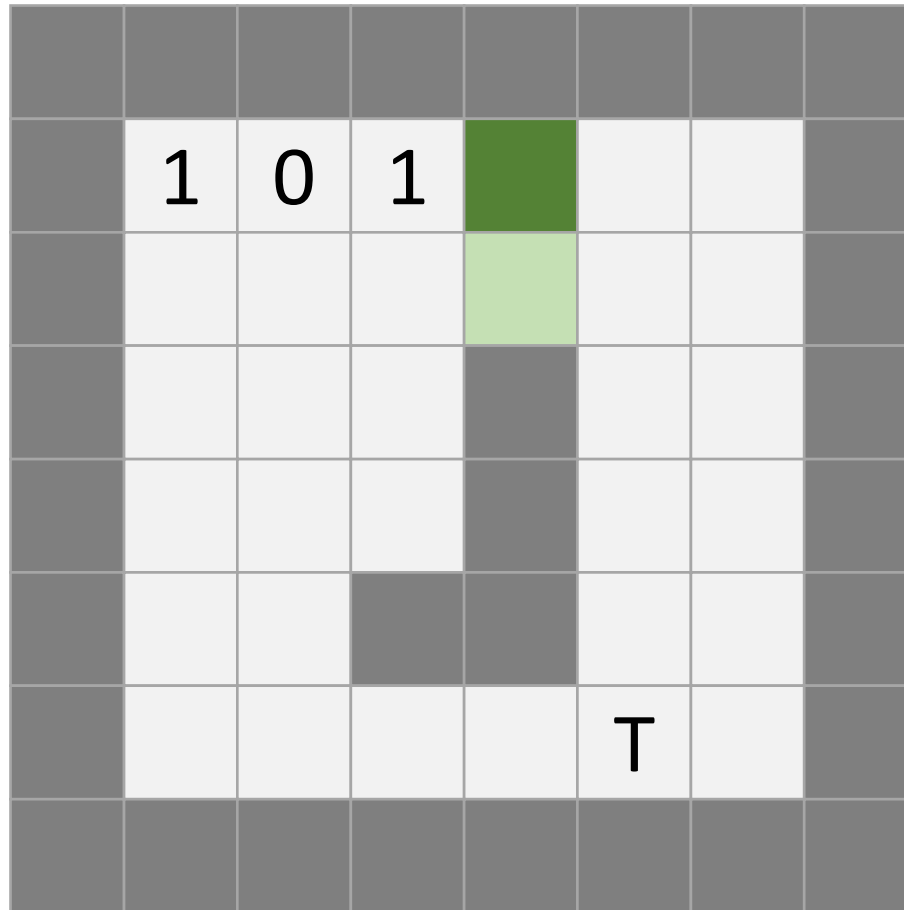
$i = 1$



Slow Version

Path Length

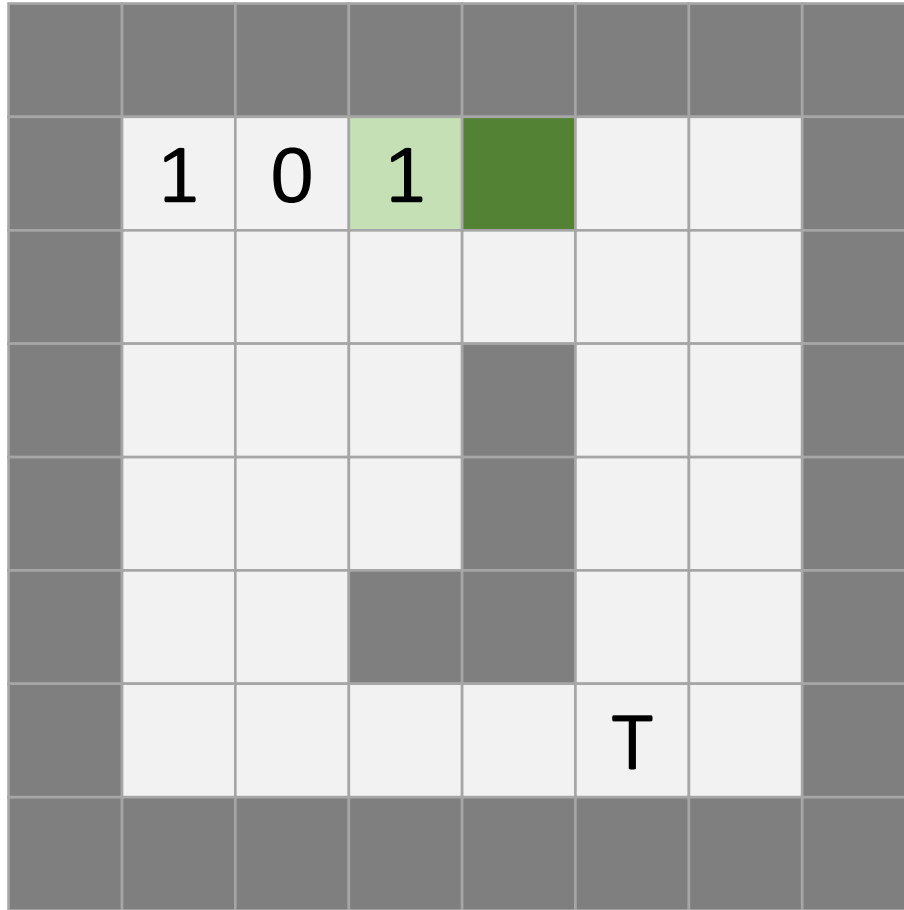
$i = 1$



Slow Version

Path Length

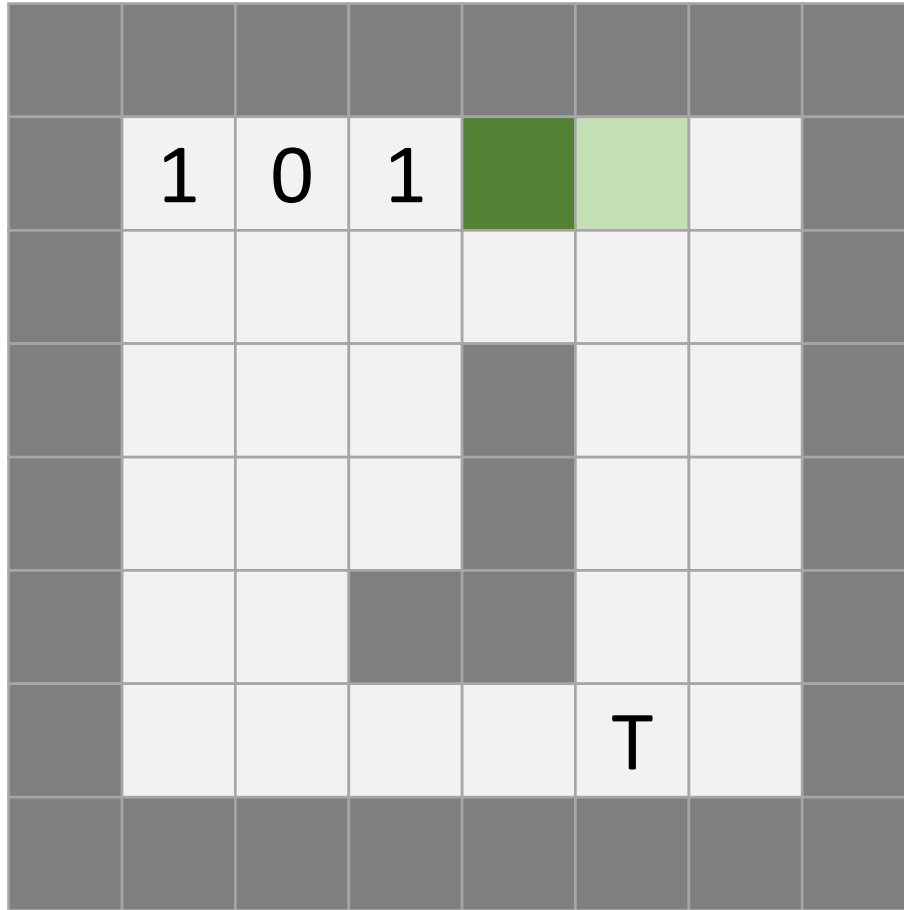
$i = 1$



Slow Version

Path Length

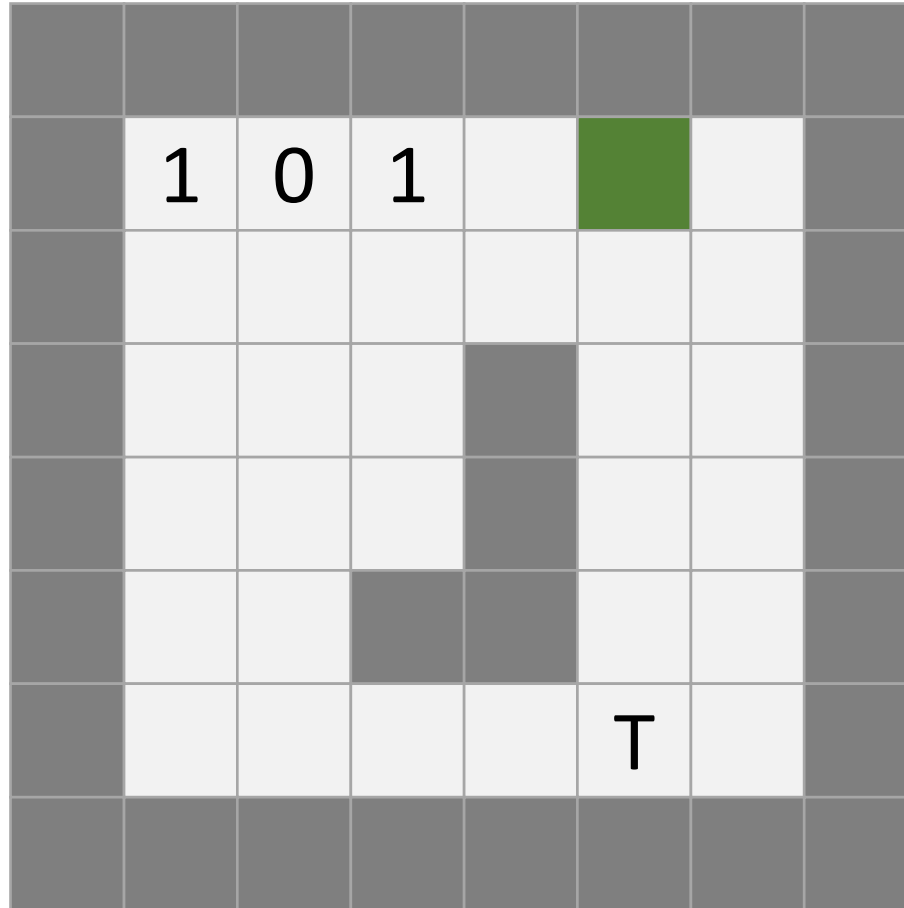
$i = 1$



Slow Version

Path Length

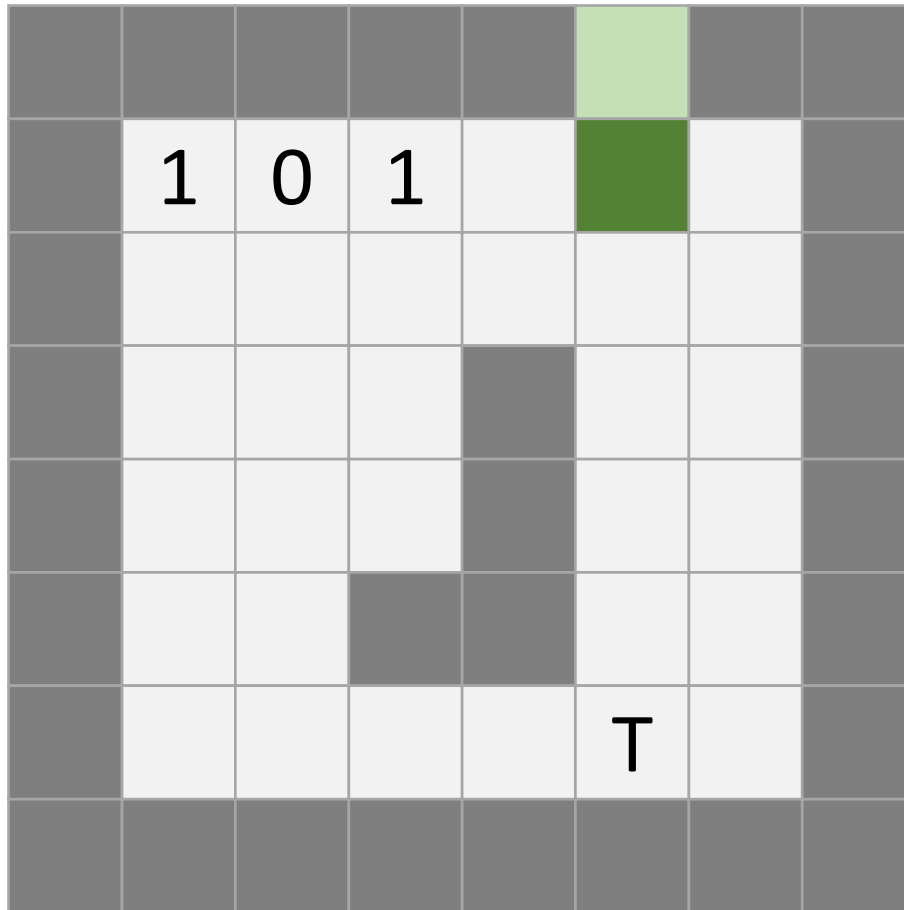
$i = 1$



Slow Version

Path Length

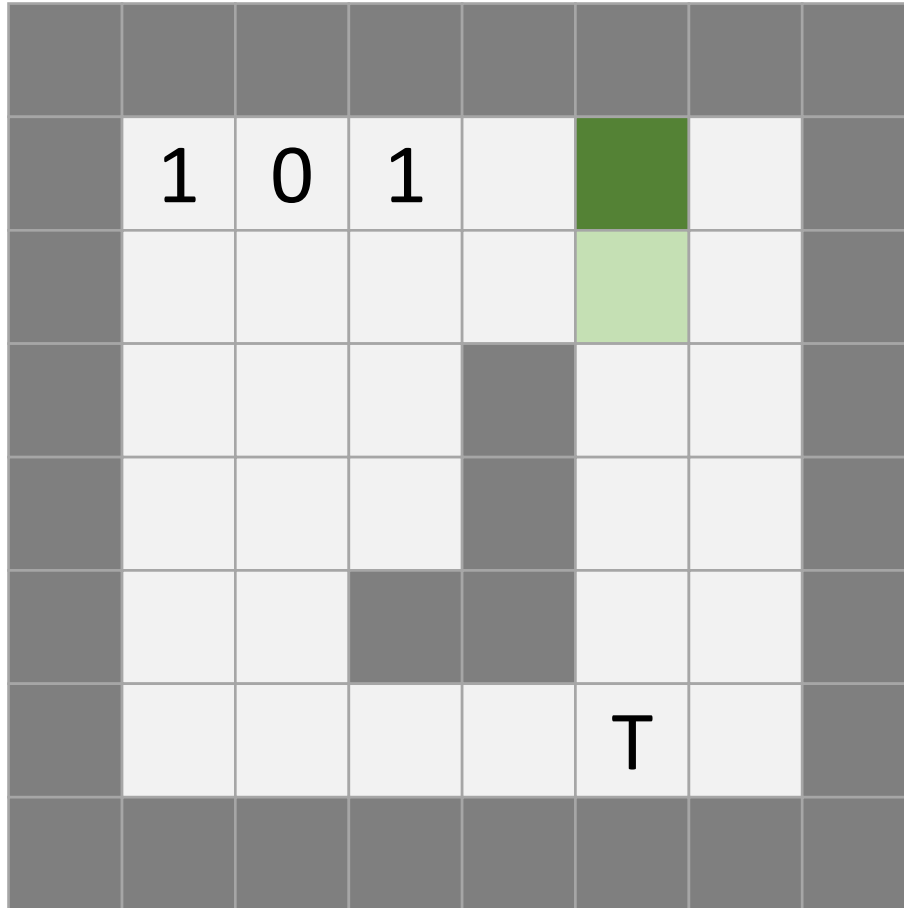
$i = 1$



Slow Version

Path Length

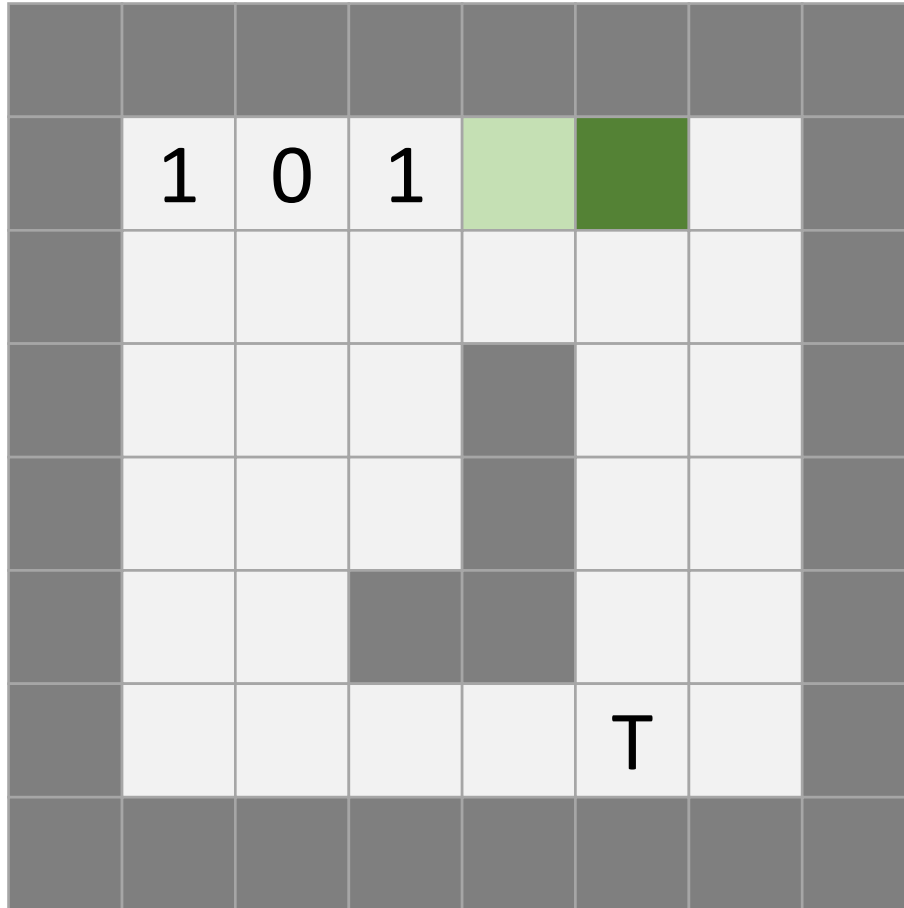
$i = 1$



Slow Version

Path Length

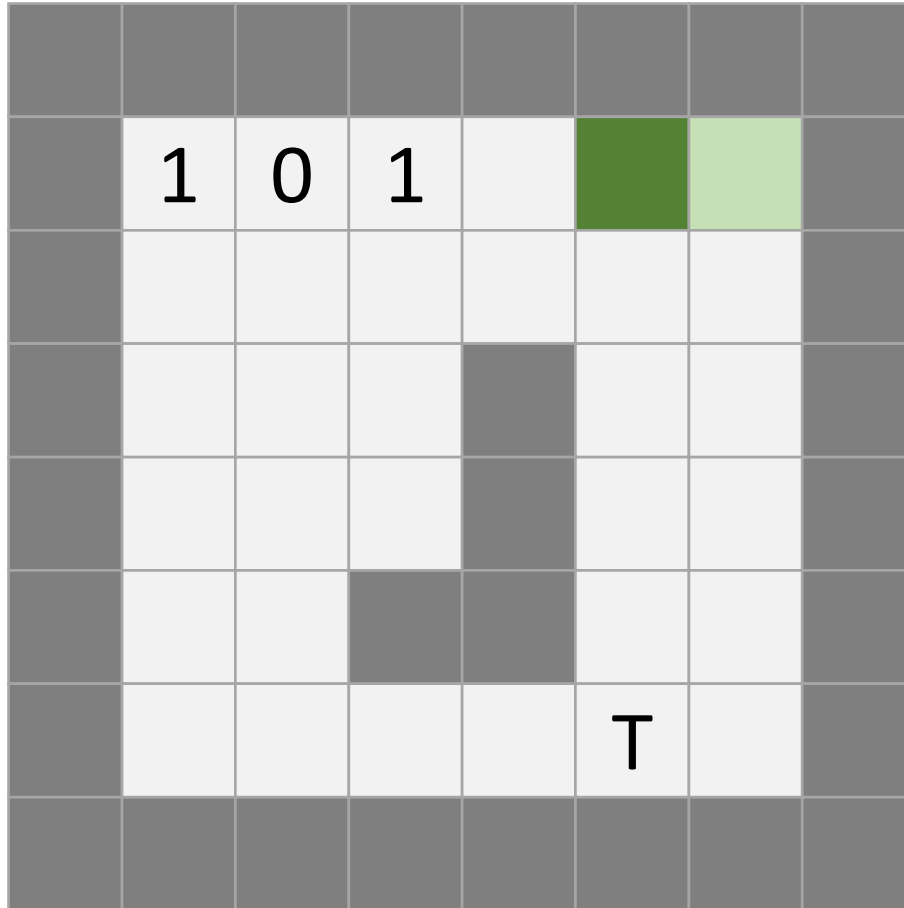
$i = 1$



Slow Version

Path Length

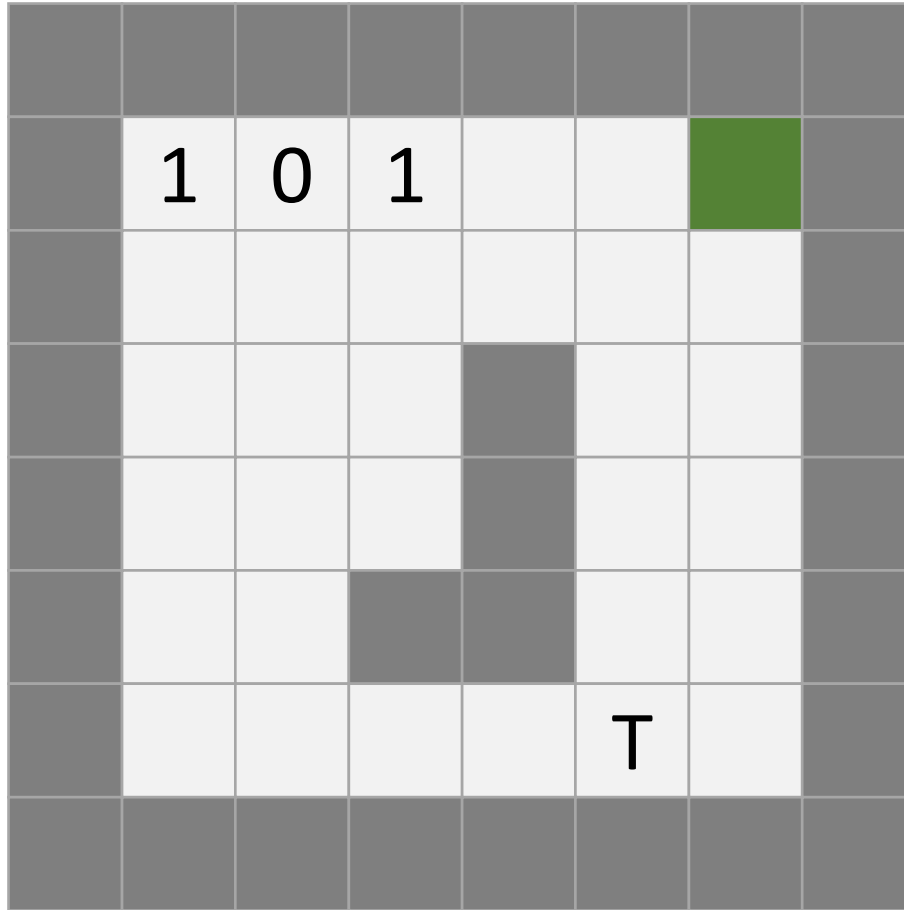
$i = 1$



Slow Version

Path Length

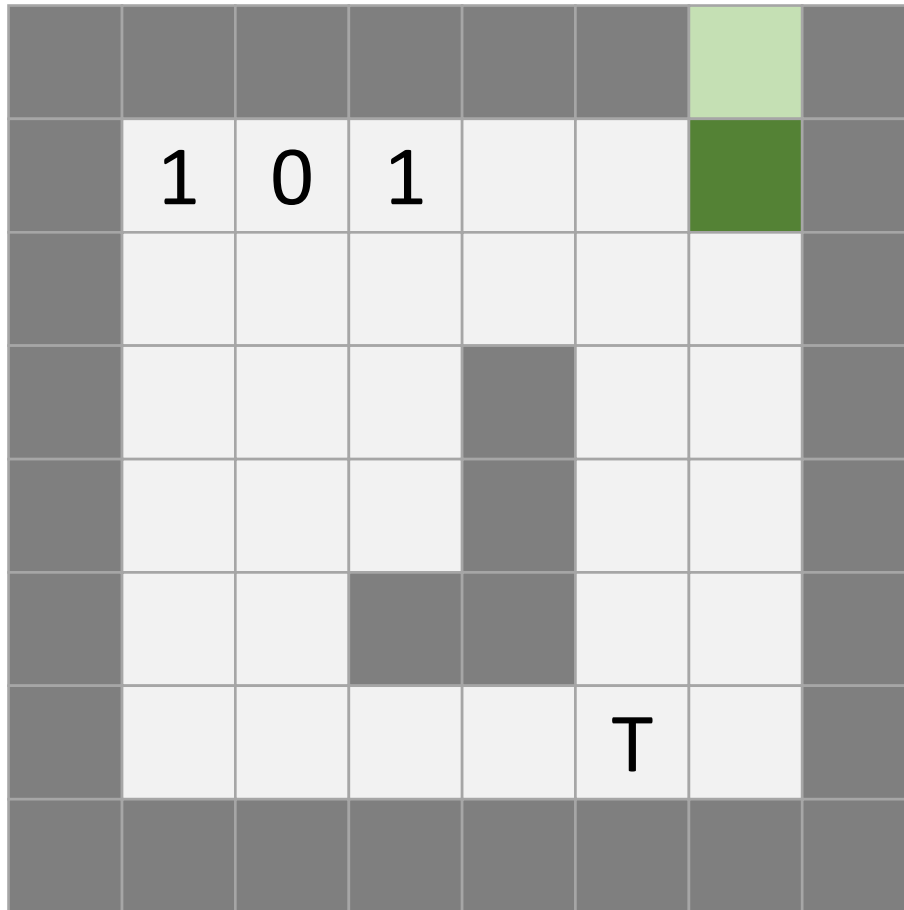
$i = 1$



Slow Version

Path Length

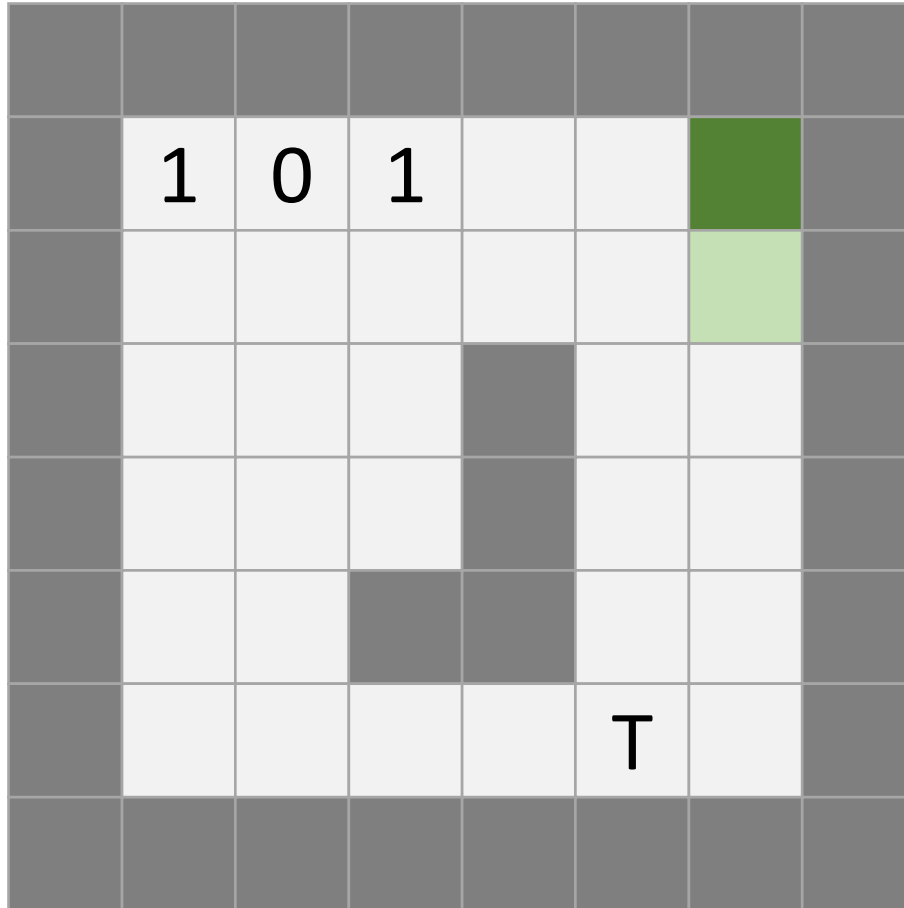
$i = 1$



Slow Version

Path Length

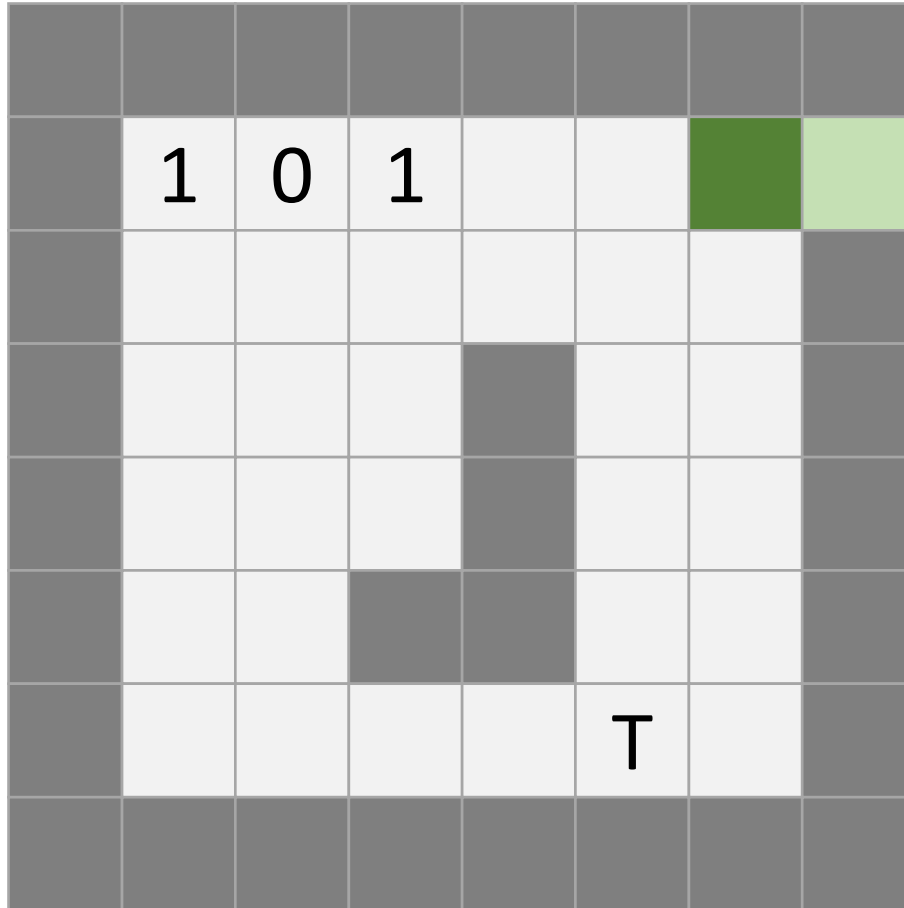
$i = 1$



Slow Version

Path Length

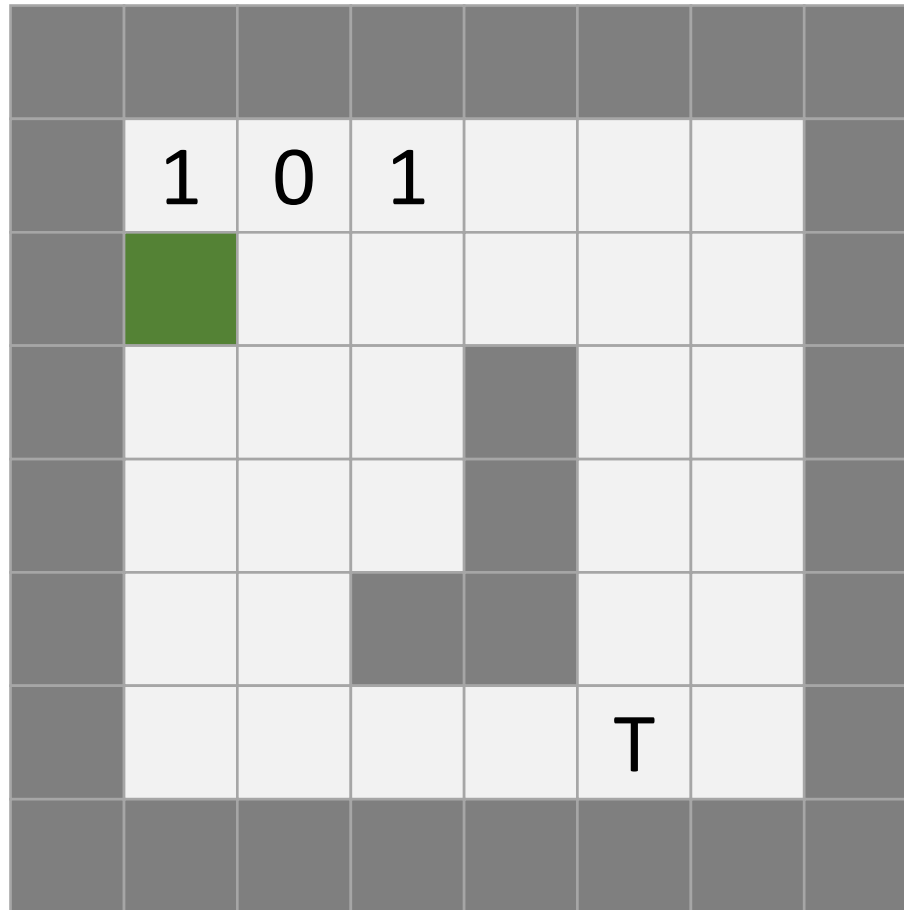
$i = 1$



Slow Version

Path Length

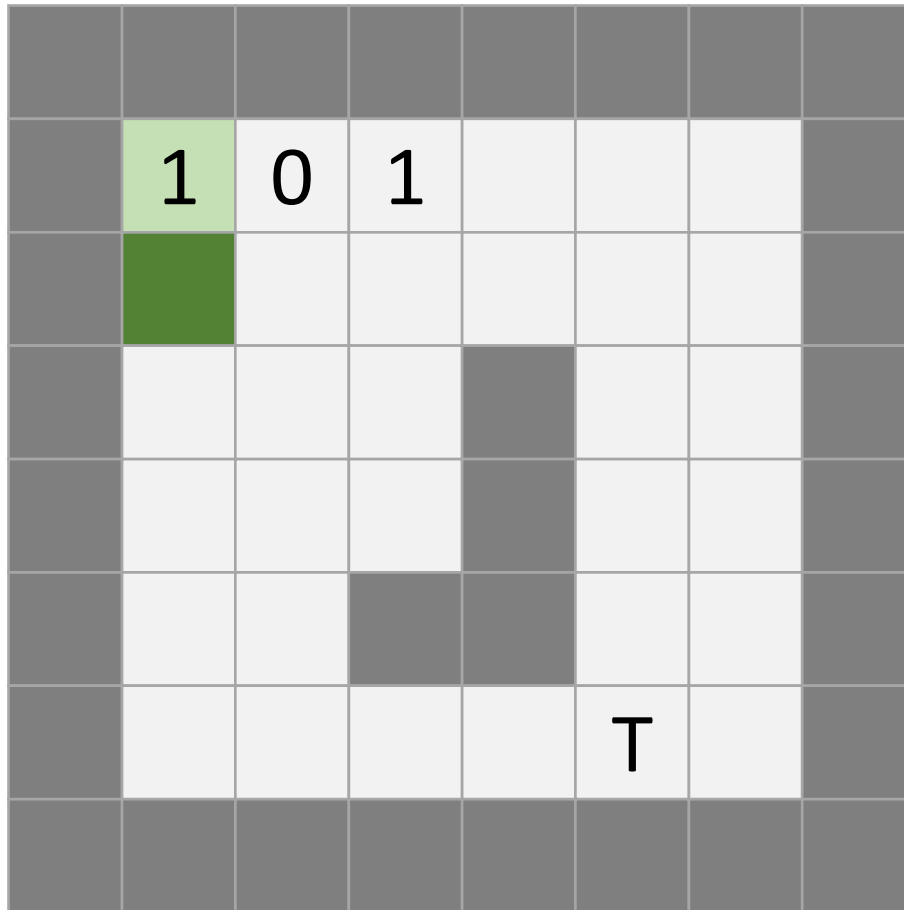
$i = 1$



Slow Version

Path Length

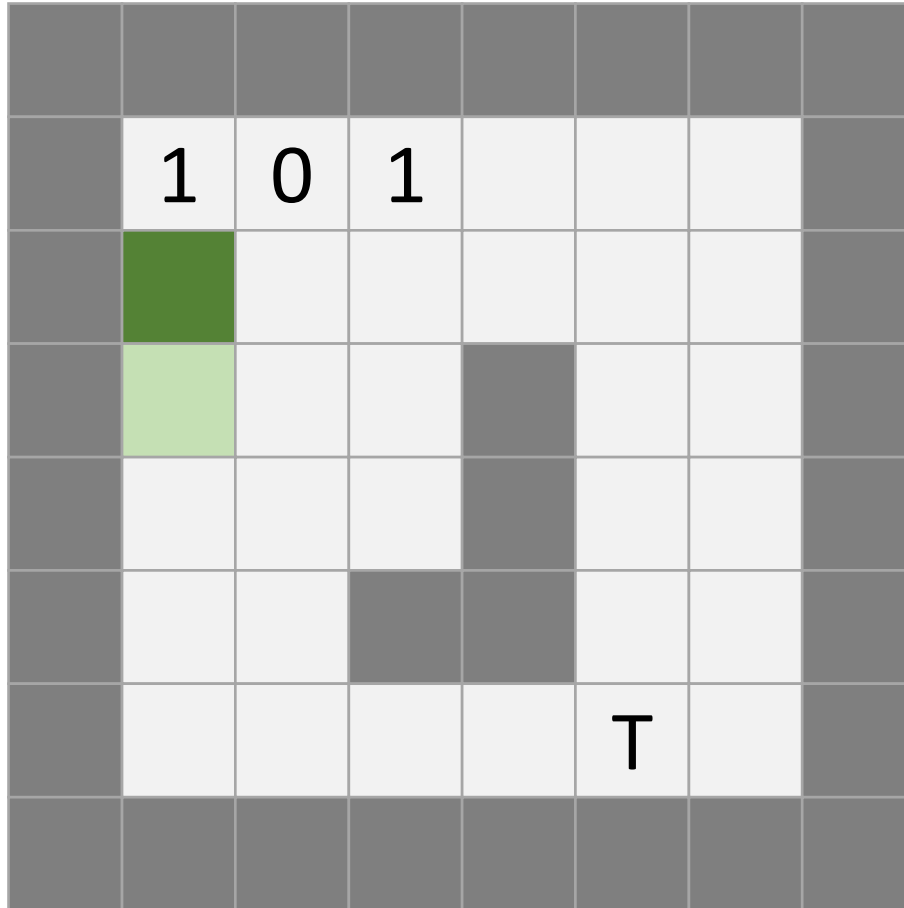
$i = 1$



Slow Version

Path Length

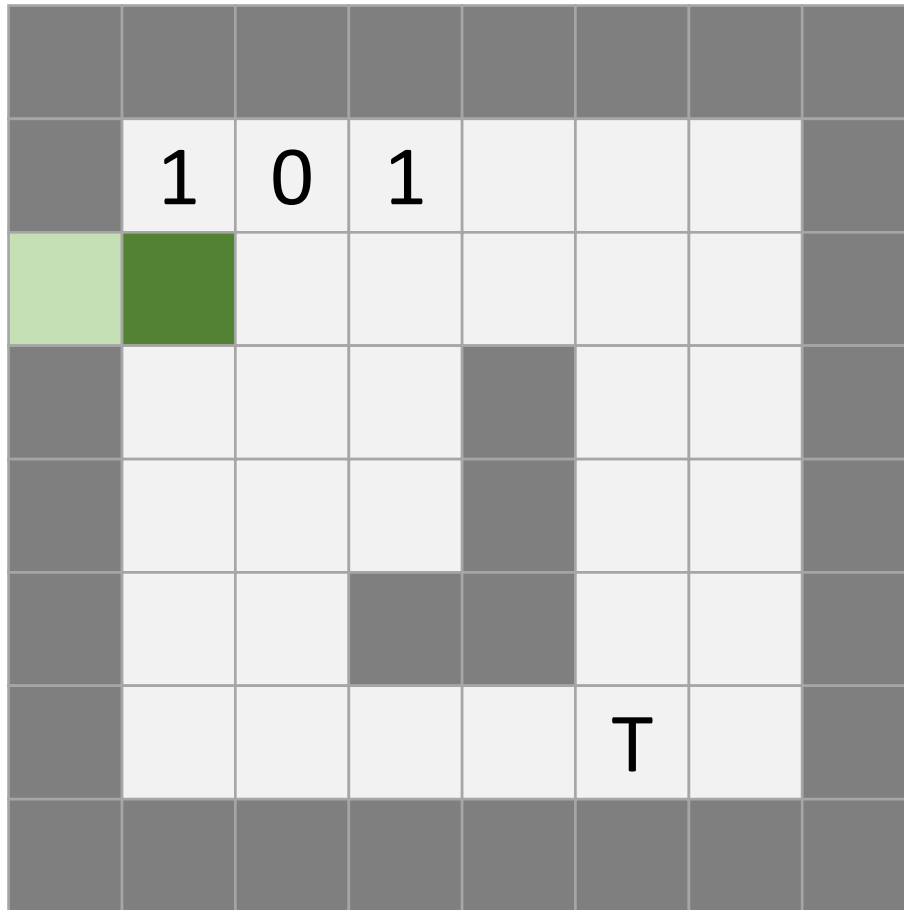
$i = 1$



Slow Version

Path Length

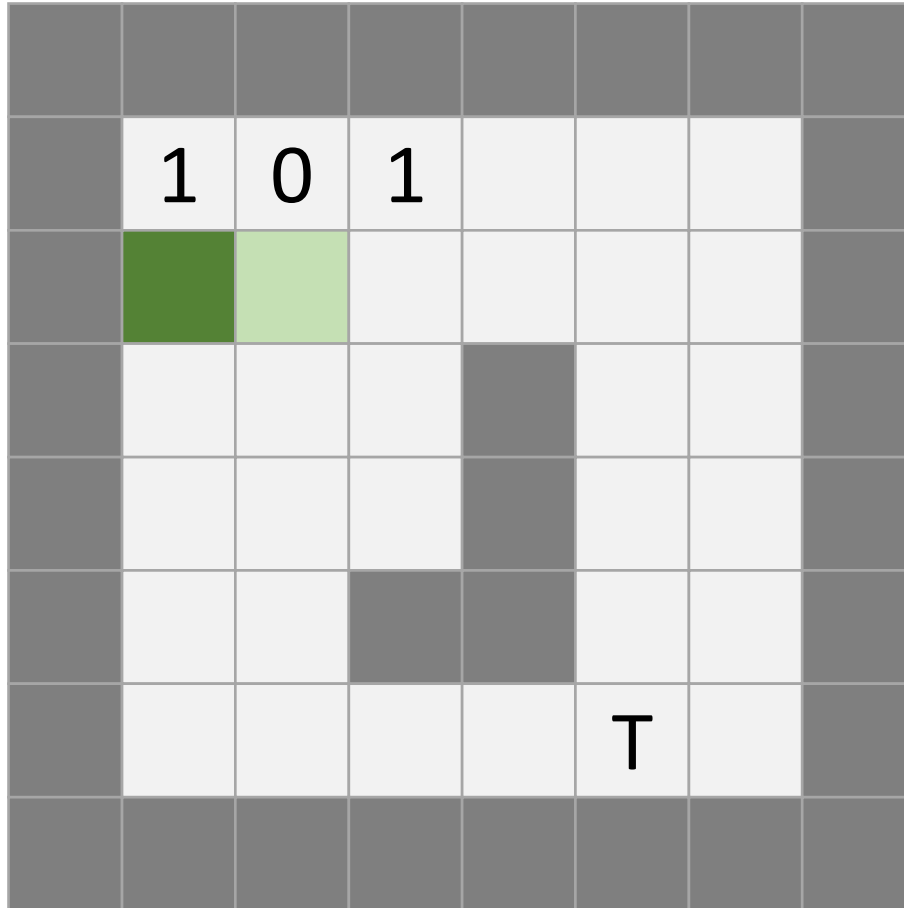
$i = 1$



Slow Version

Path Length

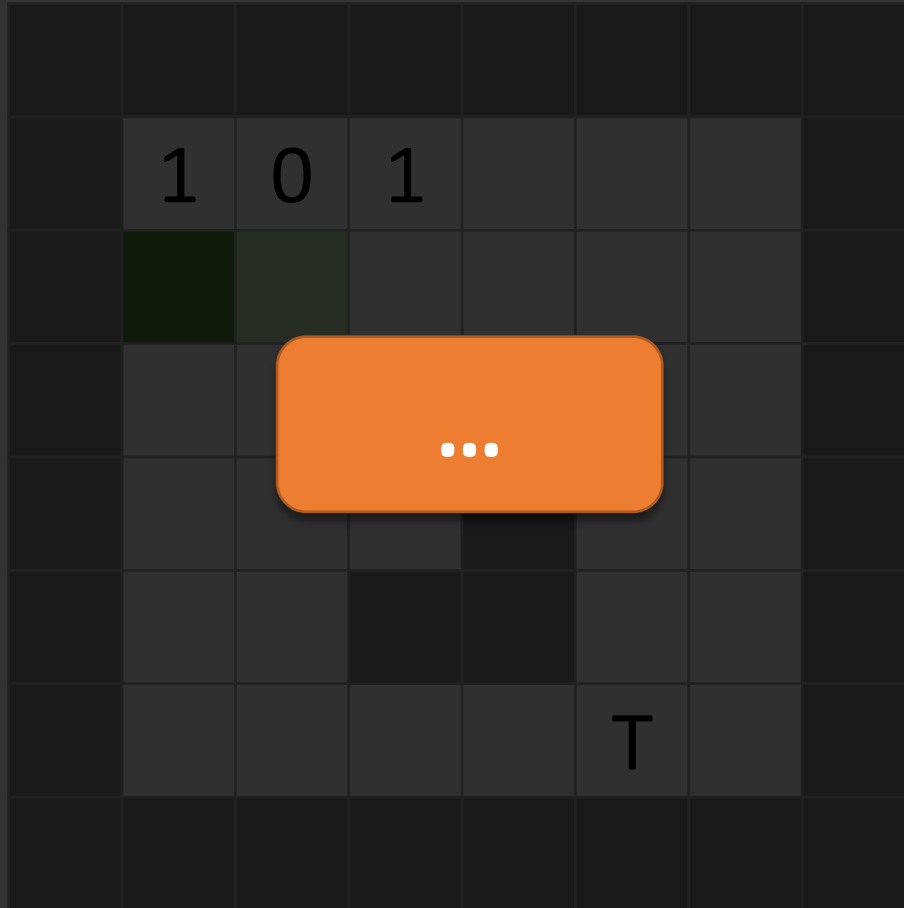
$i = 1$



Slow Version

Path Length

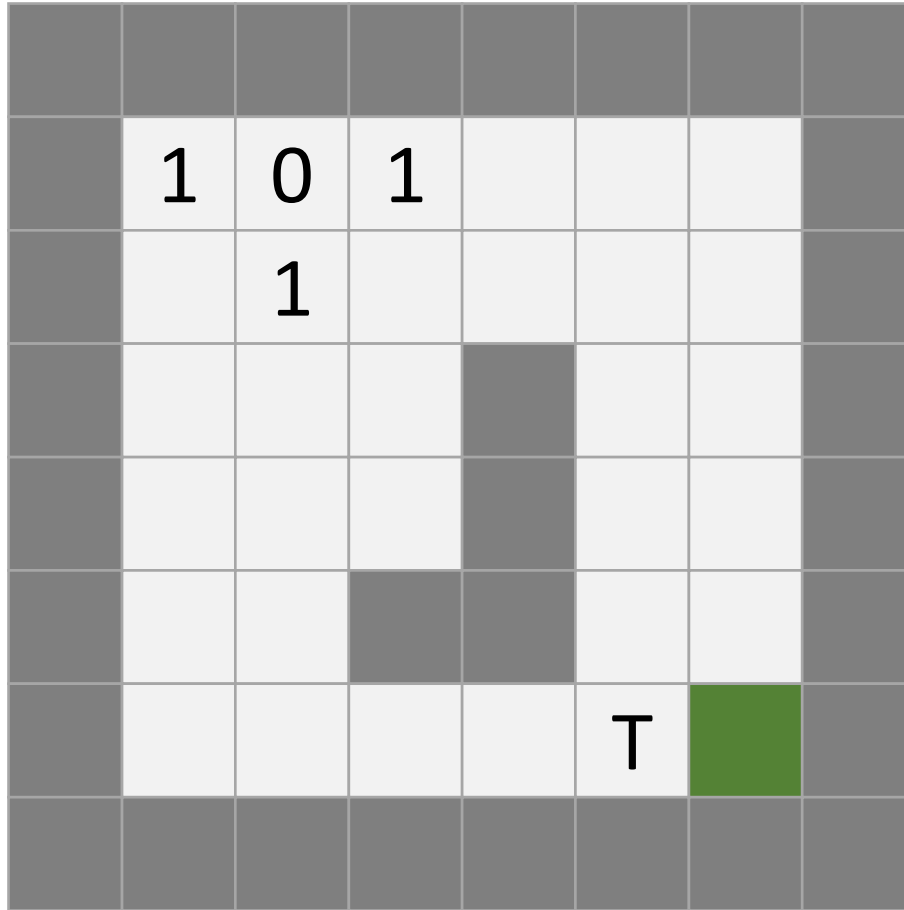
$i = 1$



Slow Version

Path Length

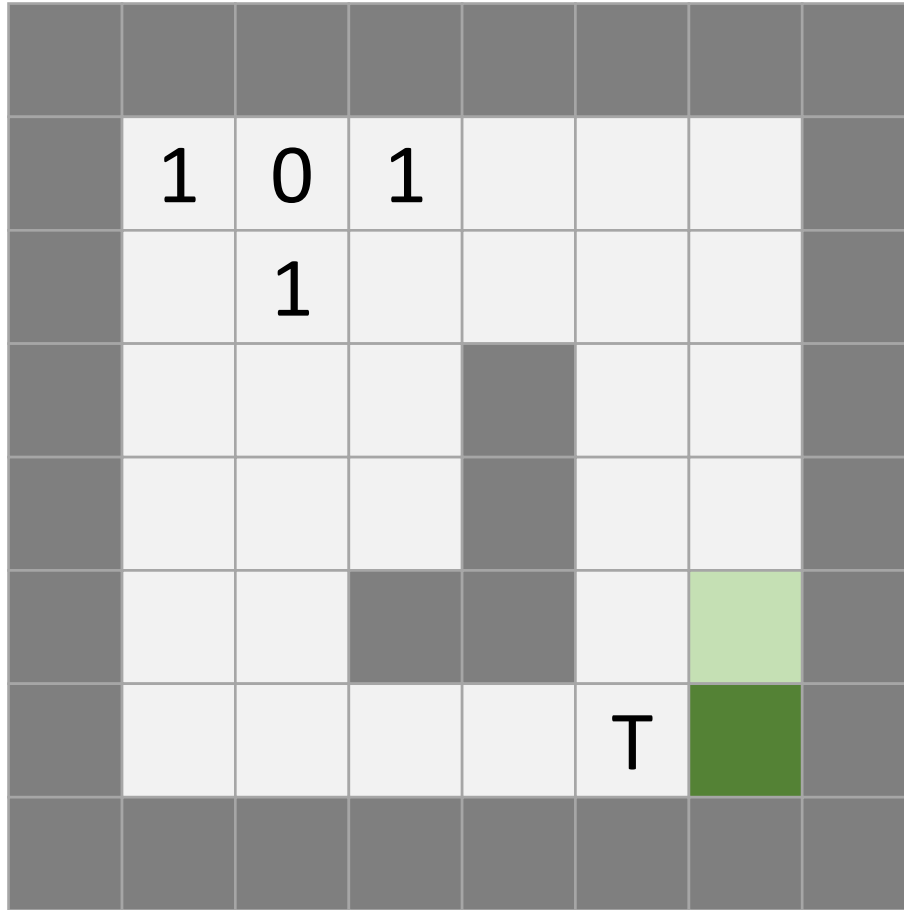
$i = 1$



Slow Version

Path Length

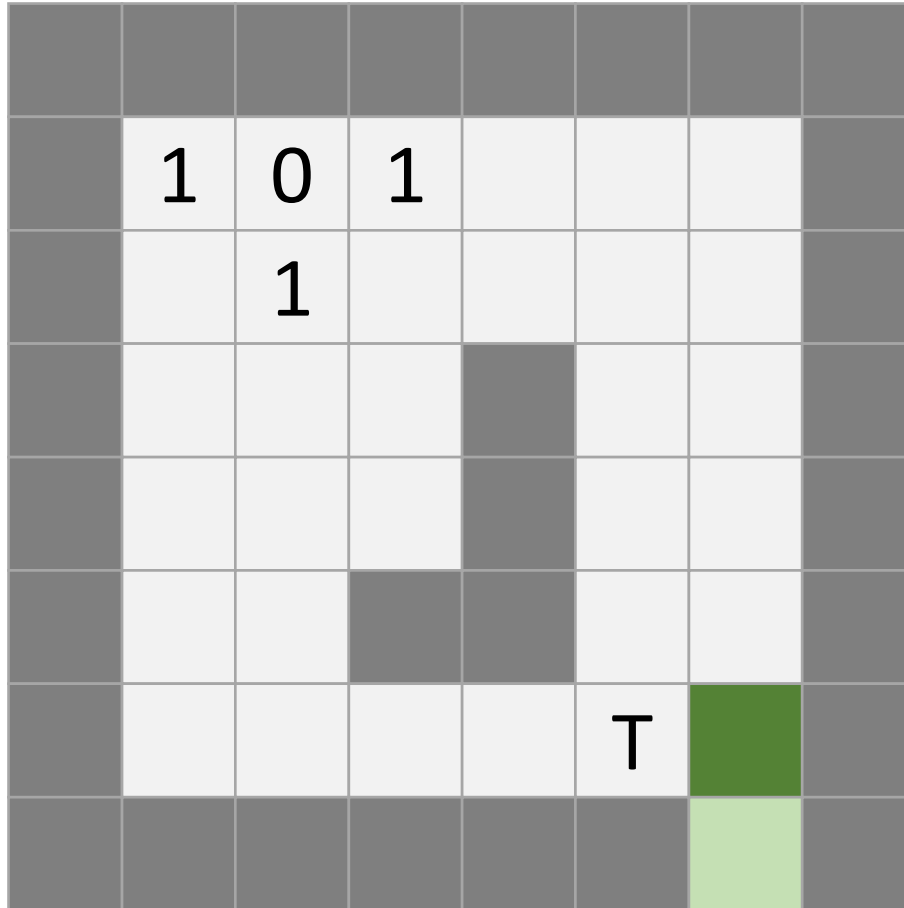
$i = 1$



Slow Version

Path Length

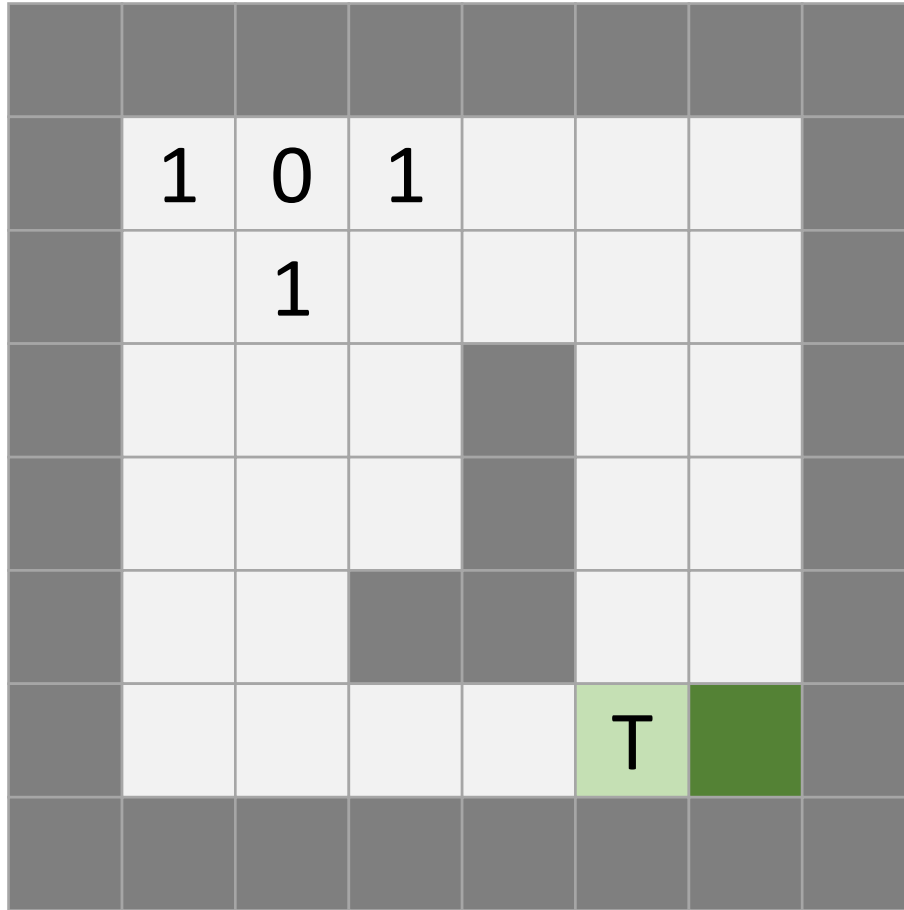
$i = 1$



Slow Version

Path Length

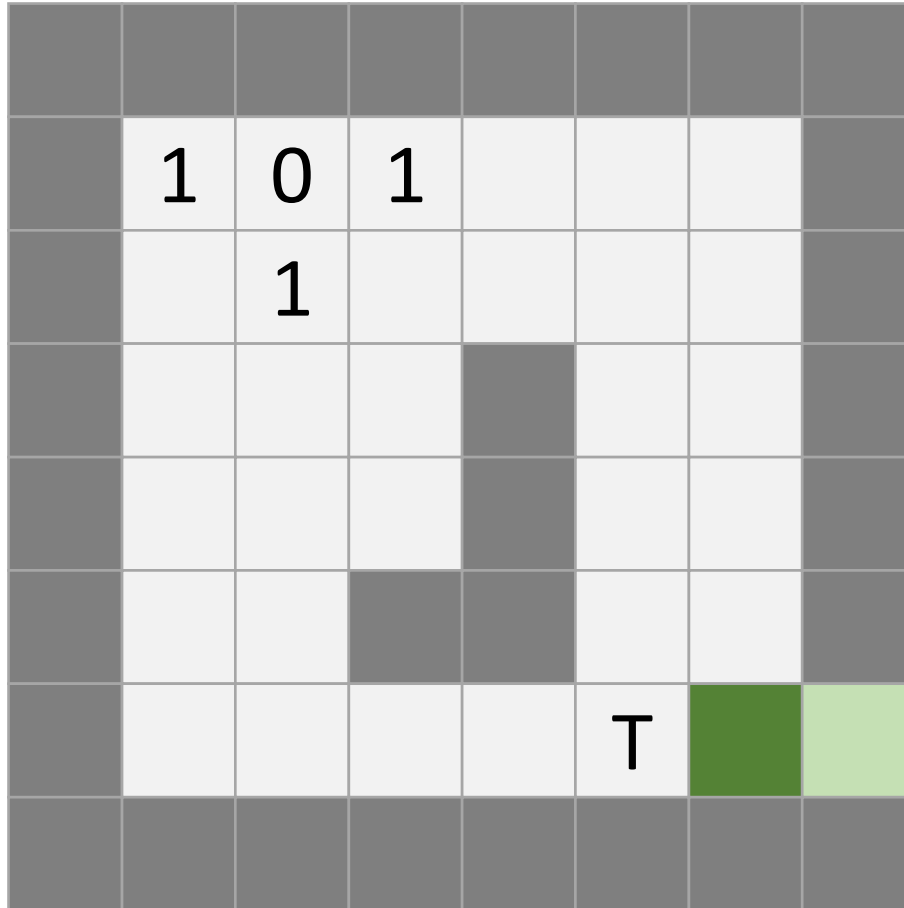
$i = 1$



Slow Version

Path Length

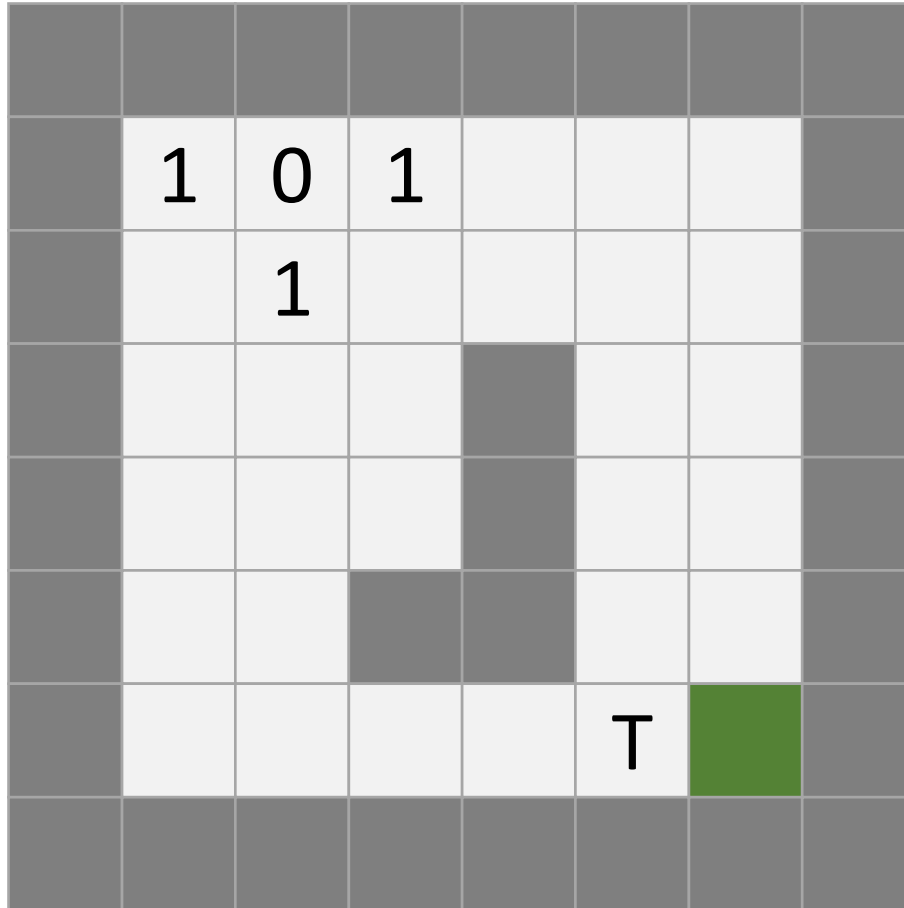
$i = 1$



Slow Version

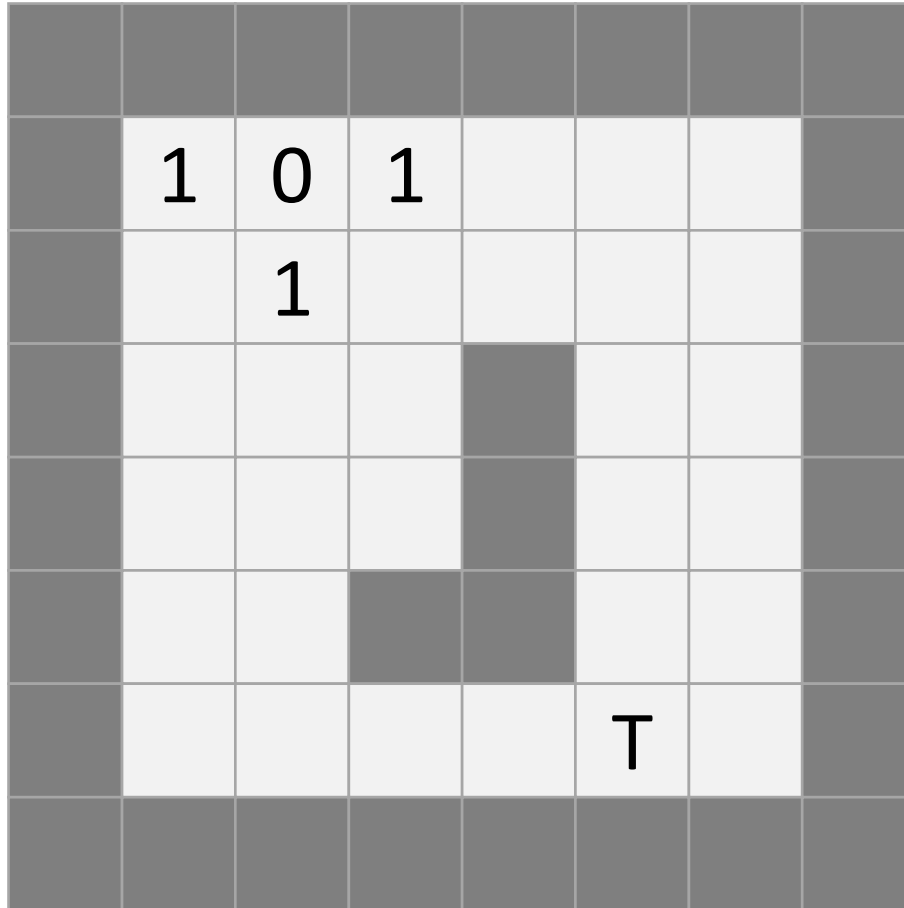
Path Length

$i = 1$



Slow Version

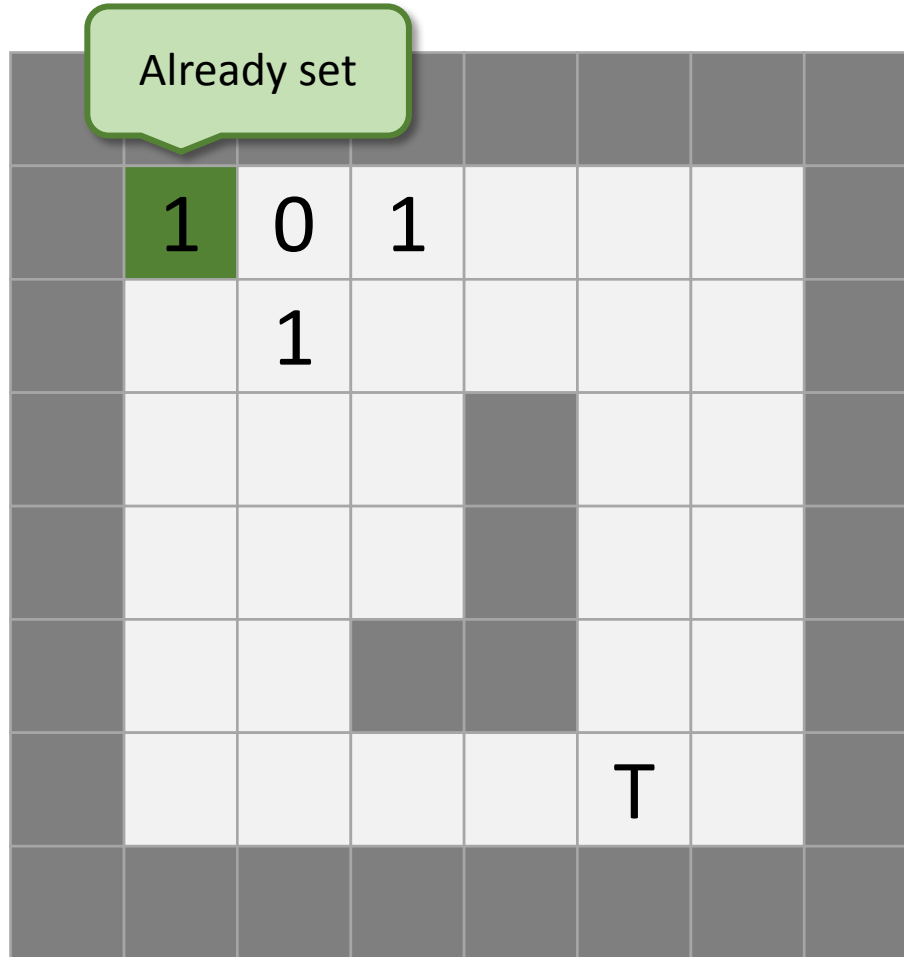
Path Length
 $i = 2$



Slow Version

Path Length

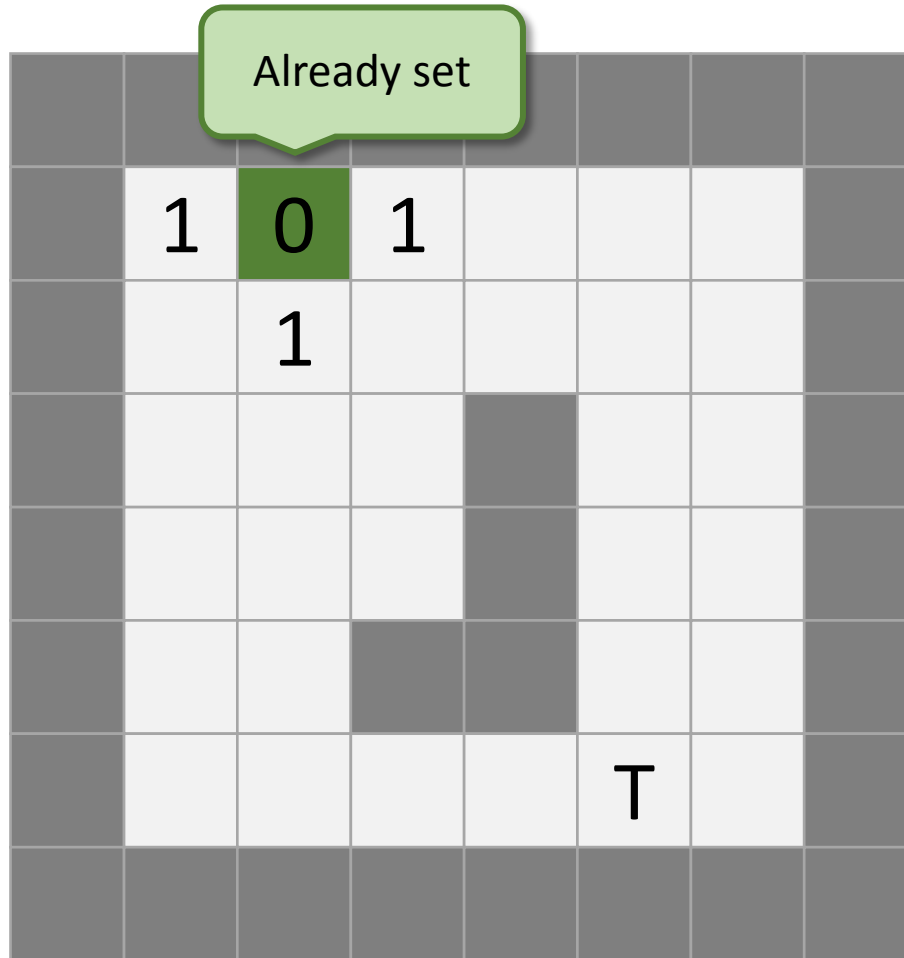
$i = 2$



Slow Version

Path Length

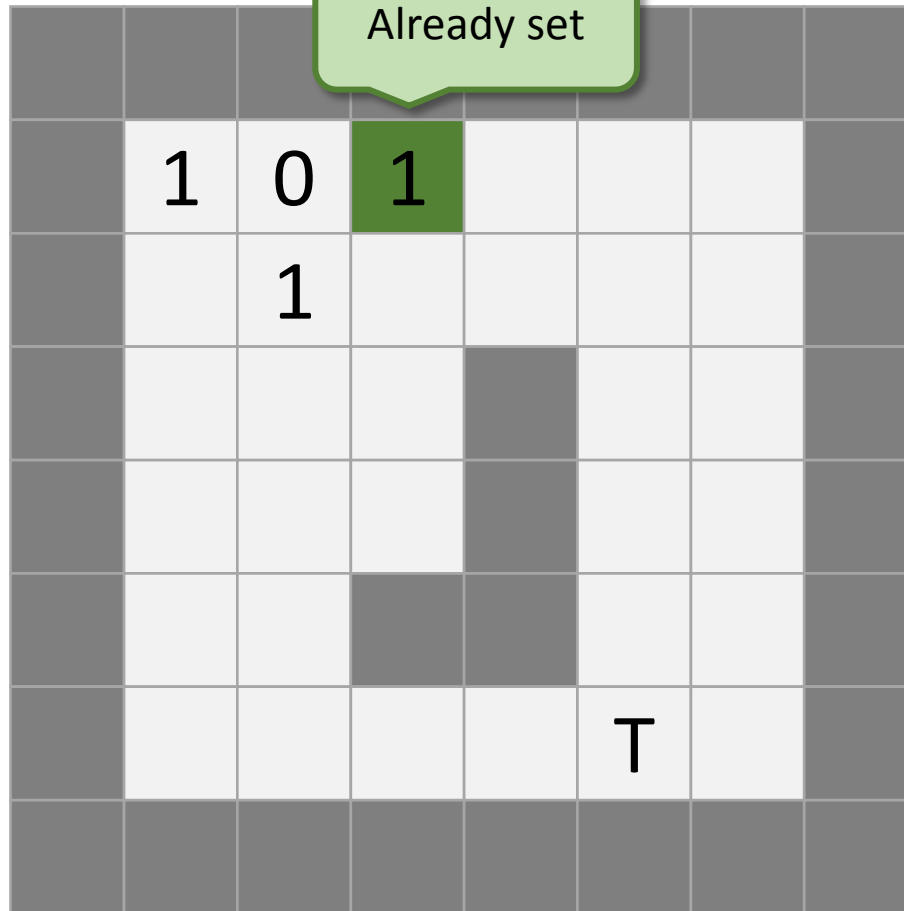
$i = 2$



Slow Version

Path Length

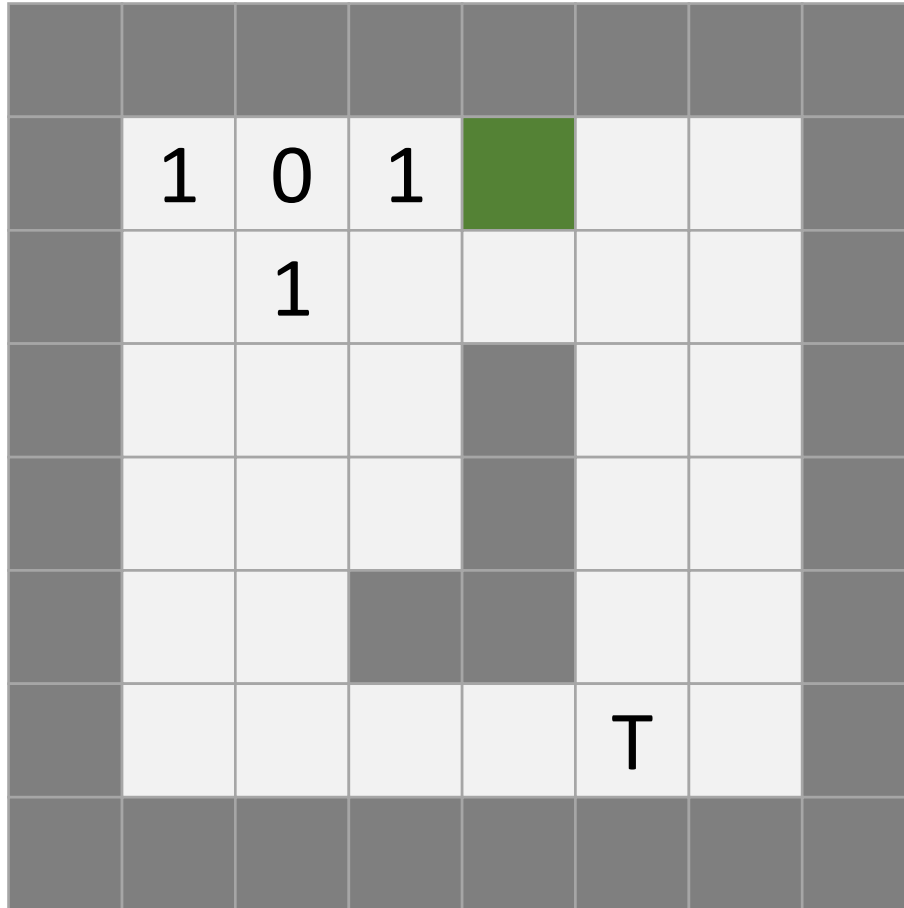
$i = 2$



Slow Version

Path Length

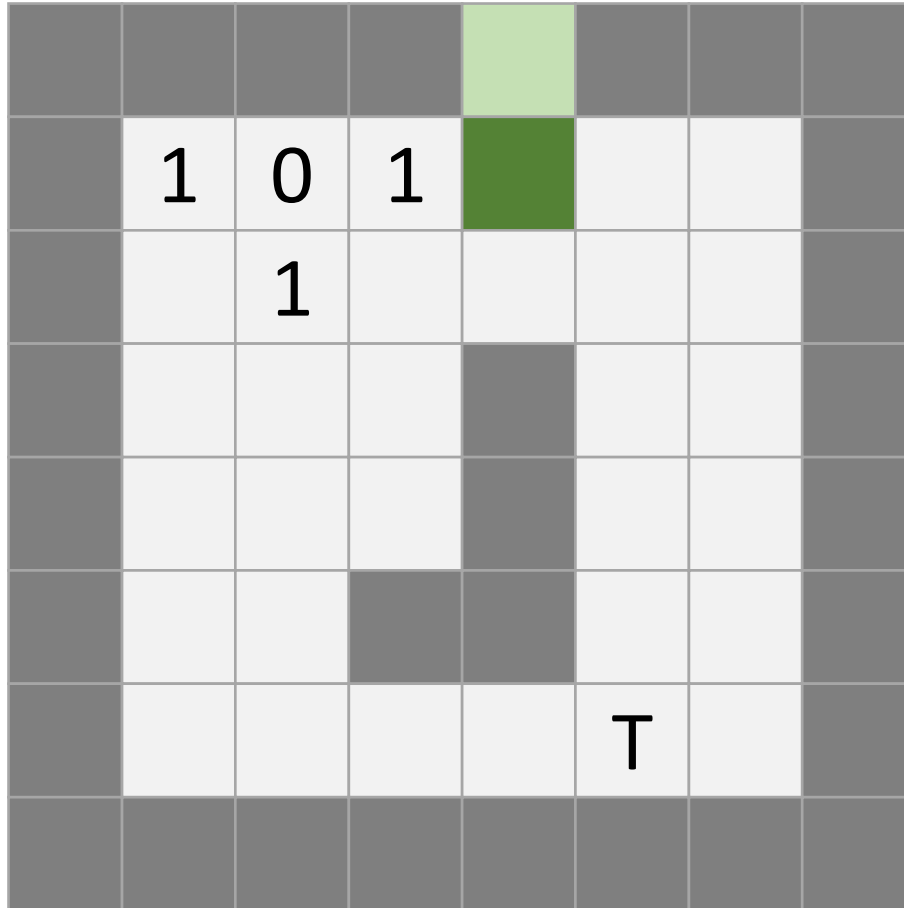
$i = 2$



Slow Version

Path Length

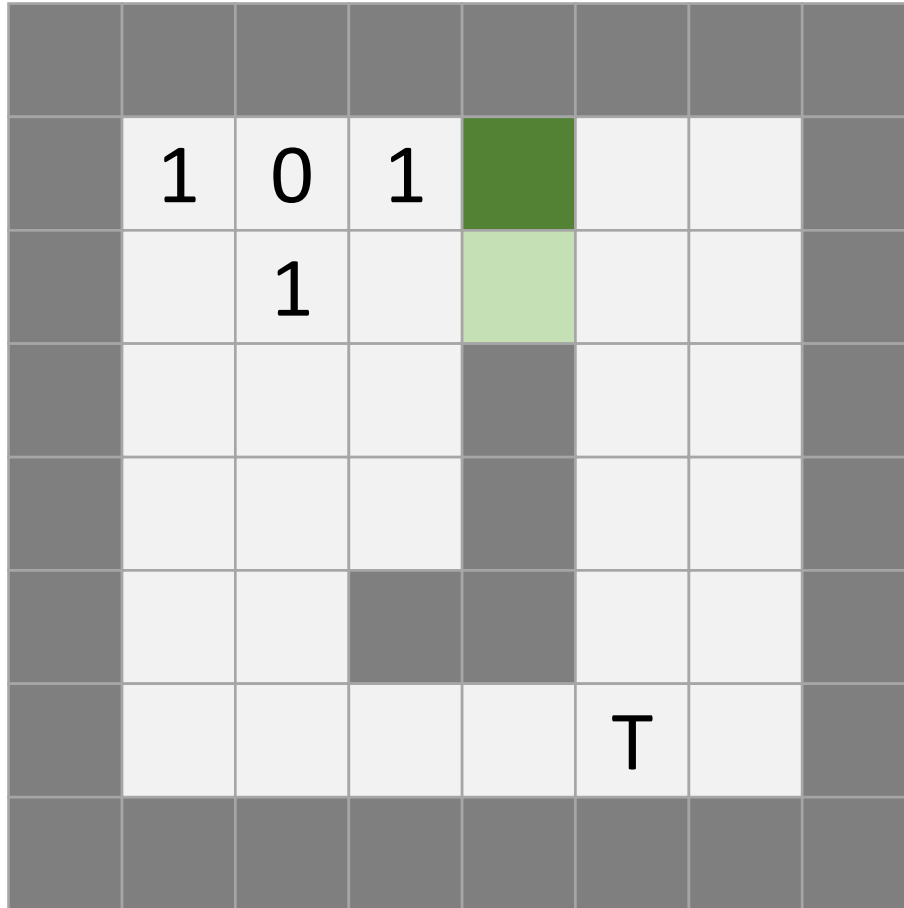
$i = 2$



Slow Version

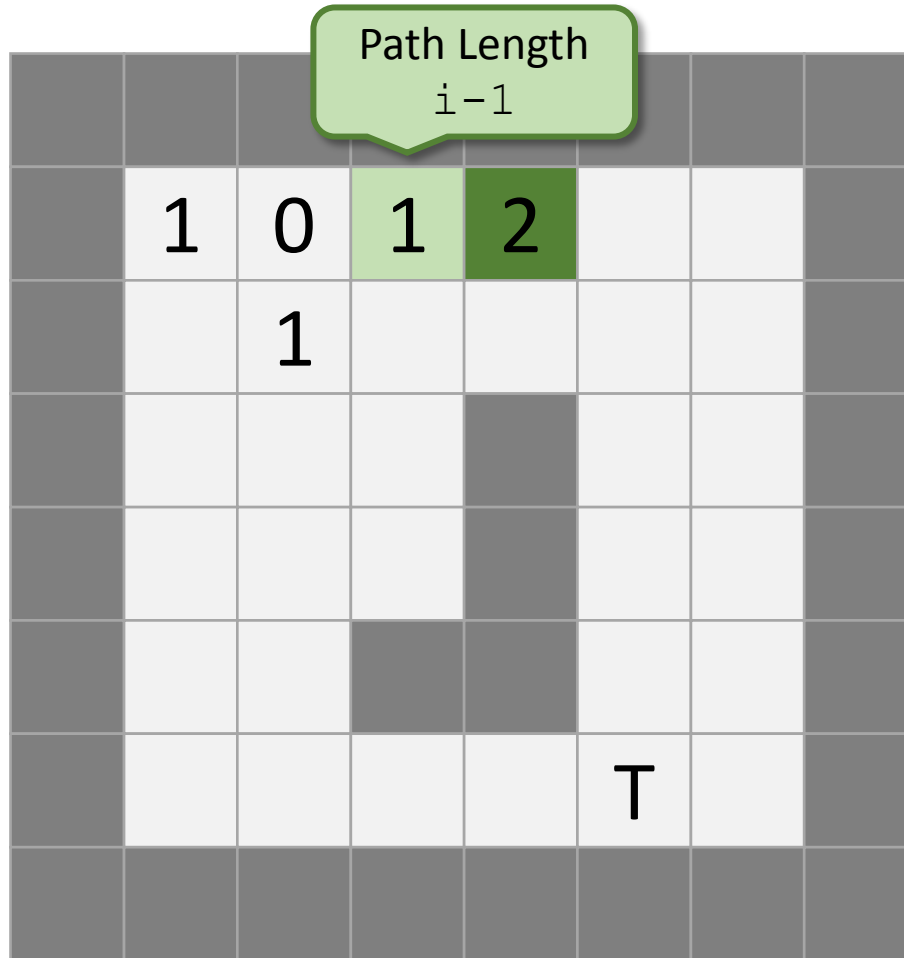
Path Length

$i = 2$



Slow Version

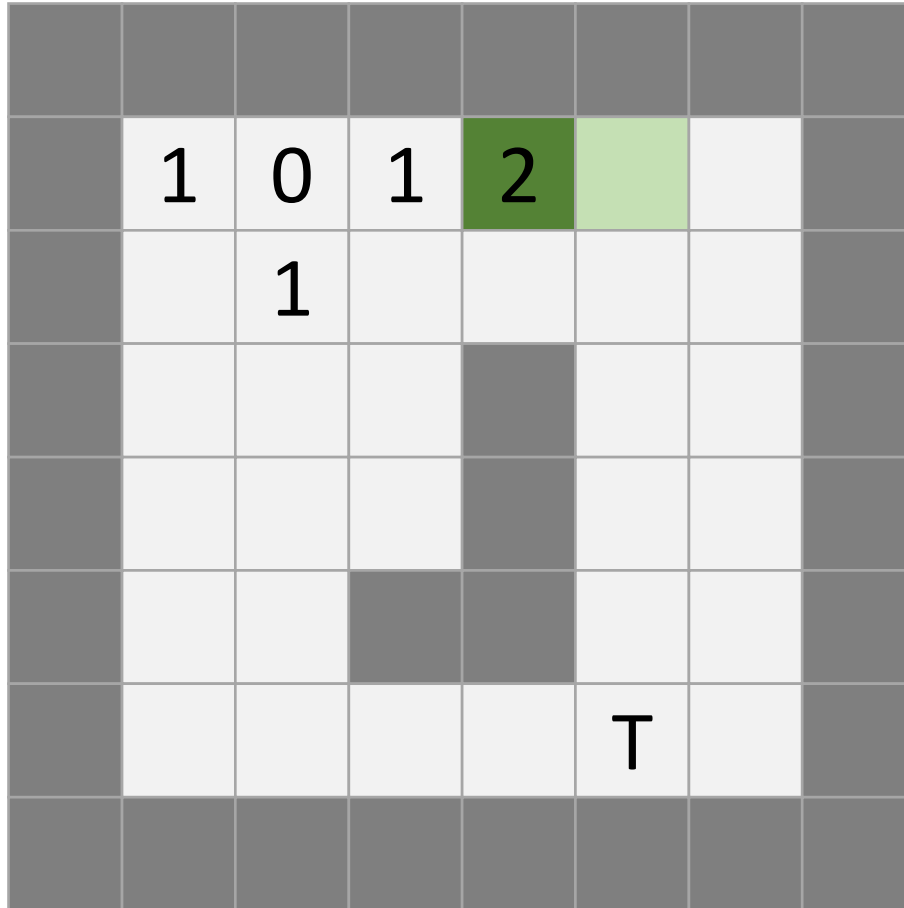
Path Length
 $i = 2$



Slow Version

Path Length

$i = 2$



Slow Version

Path Length

$i = 2$



Improvement

- Problem:

In each step the whole floor is examined.

Improvement

- Problem:

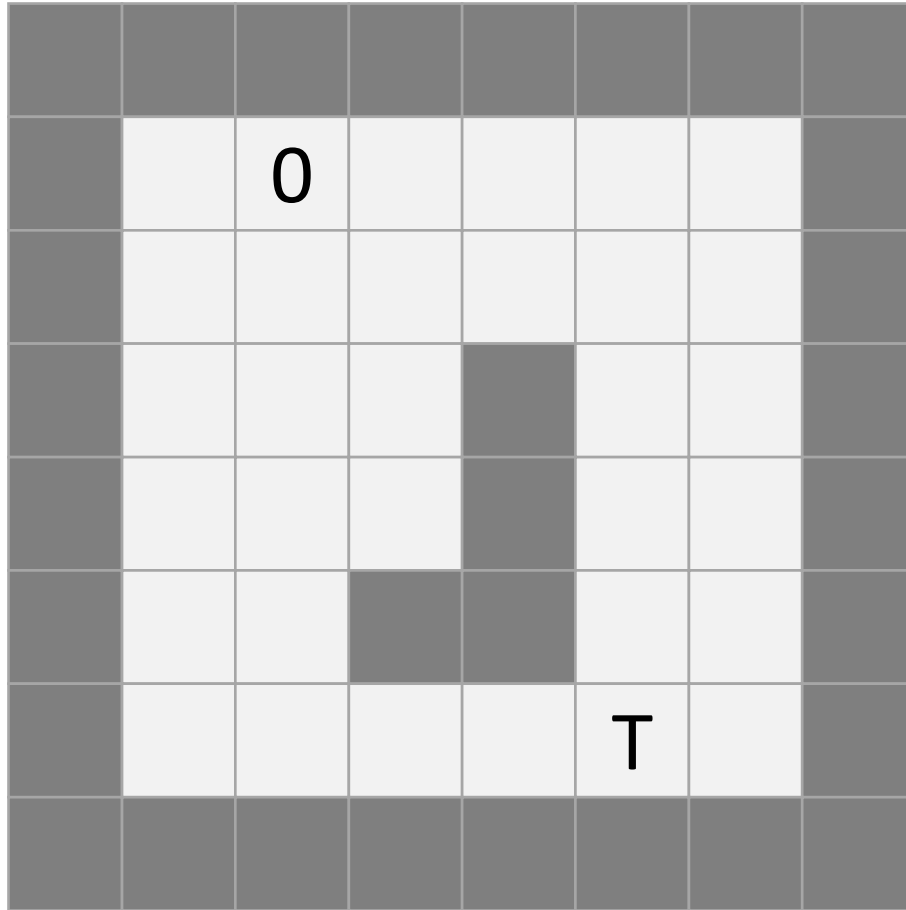
In each step the whole floor is examined.

- Idea:

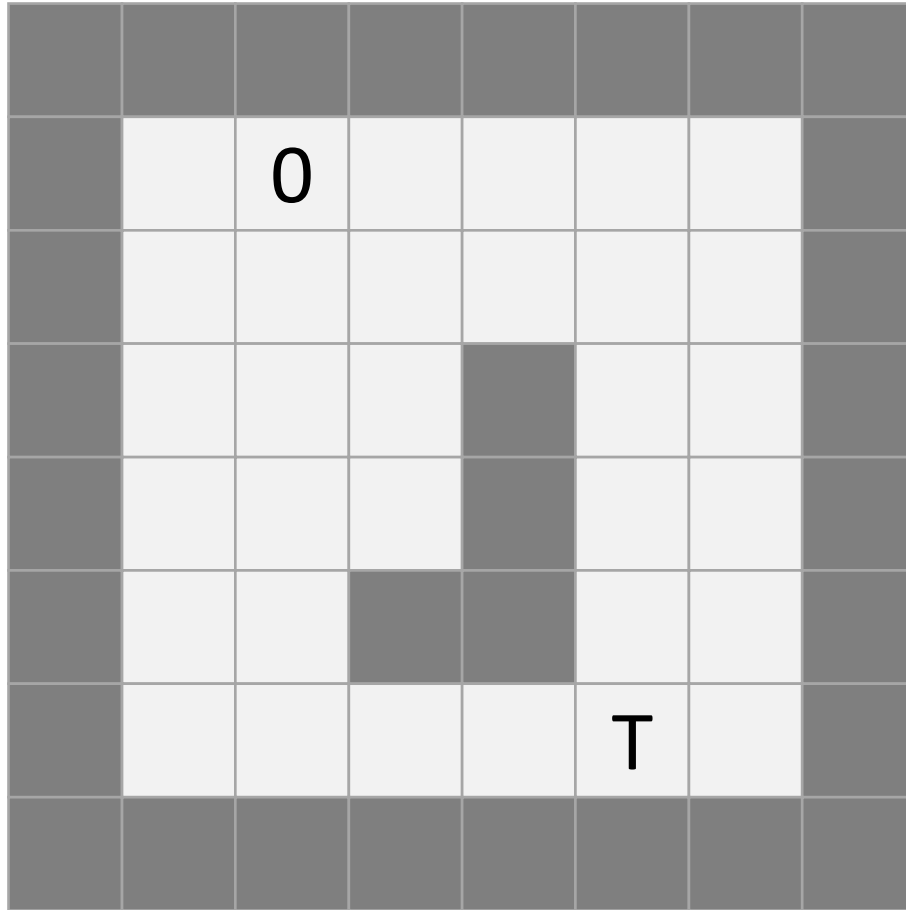
Just examine neighbours.

Faster Version

Faster Version

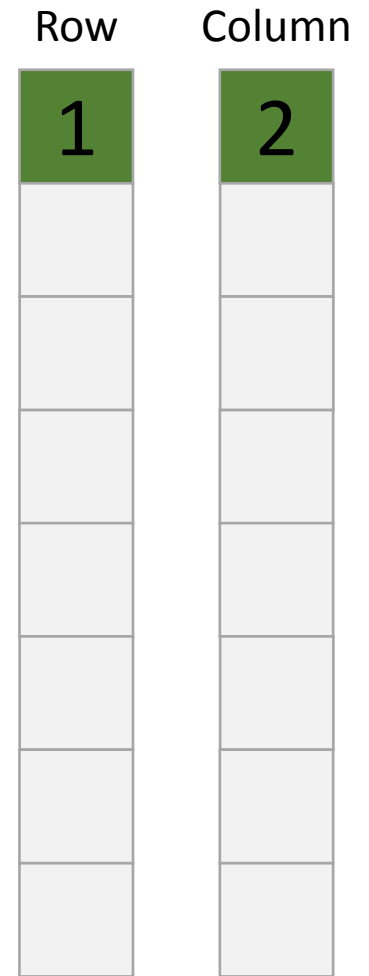
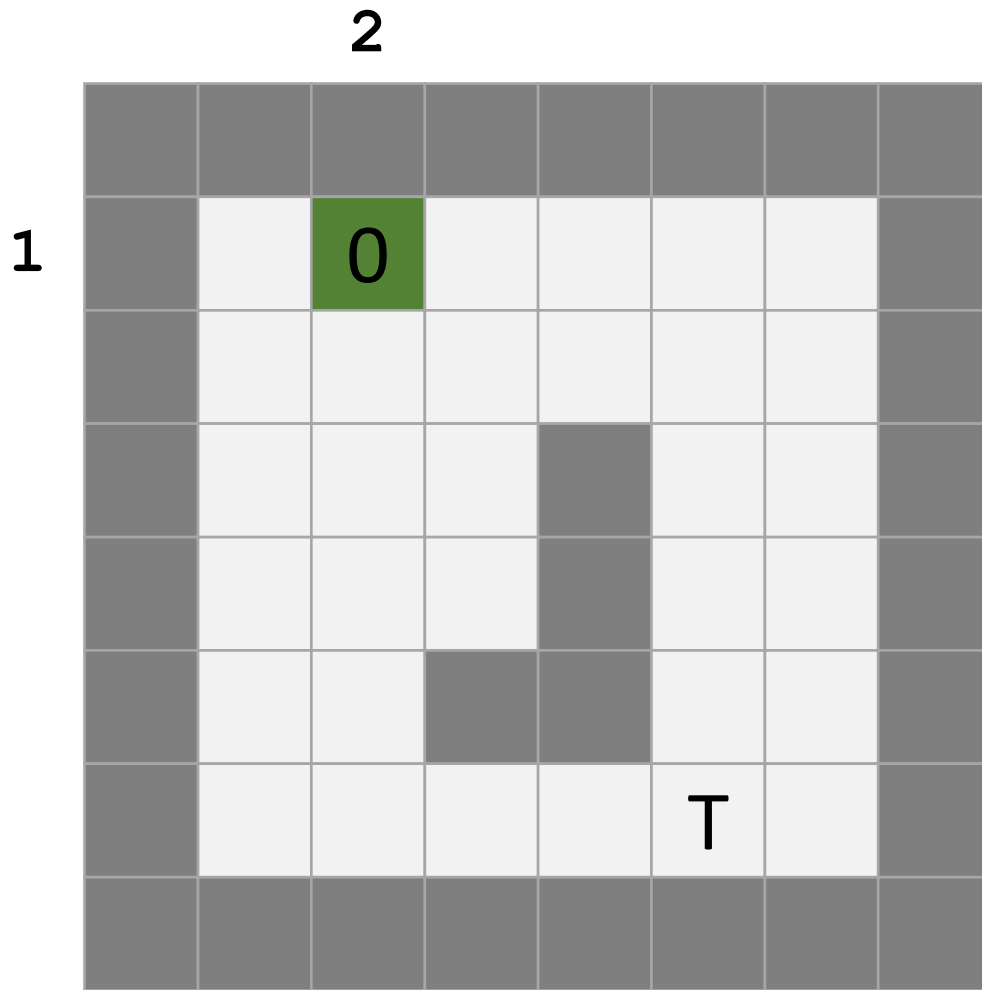


Faster Version

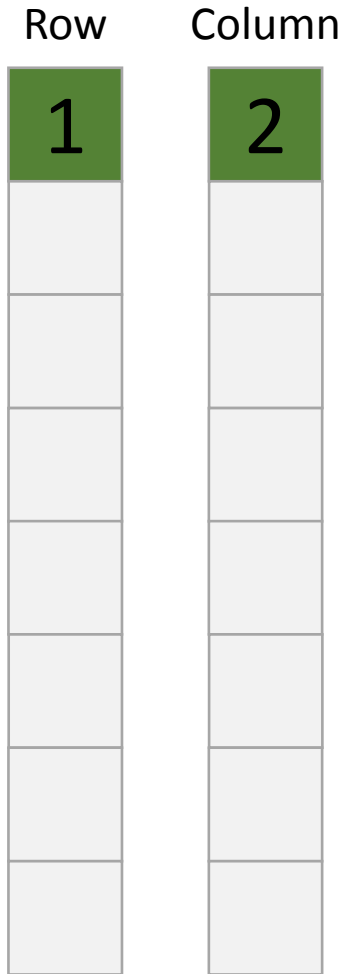
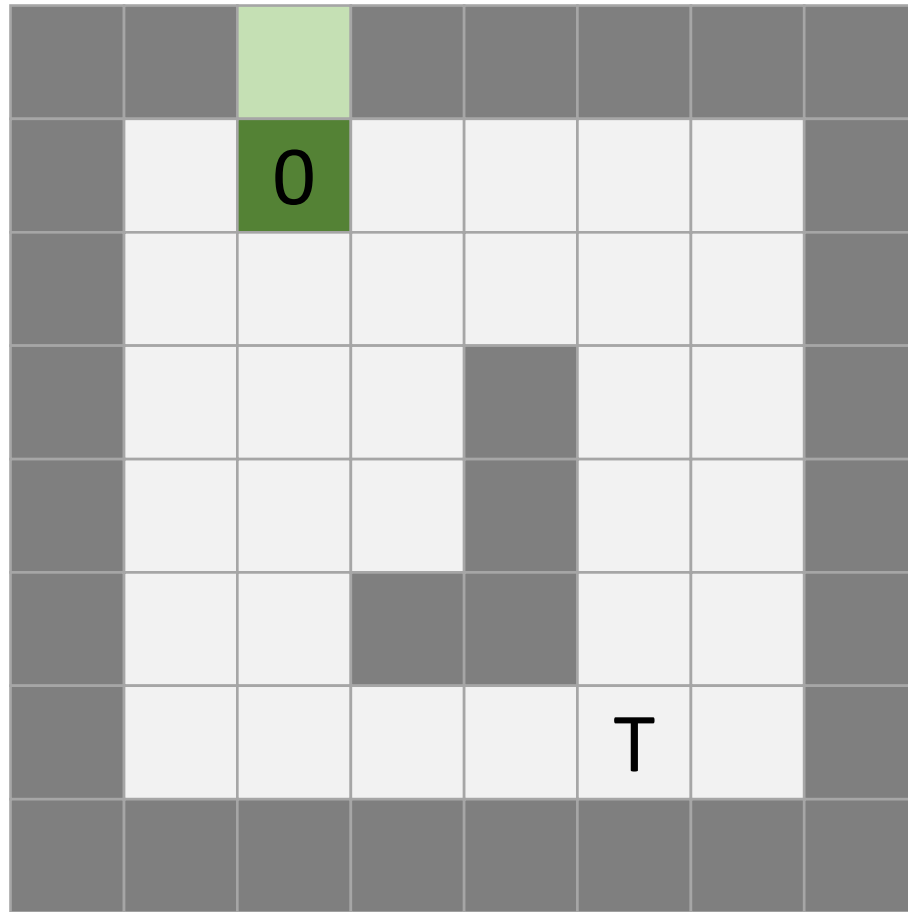


Row	Column
1	2

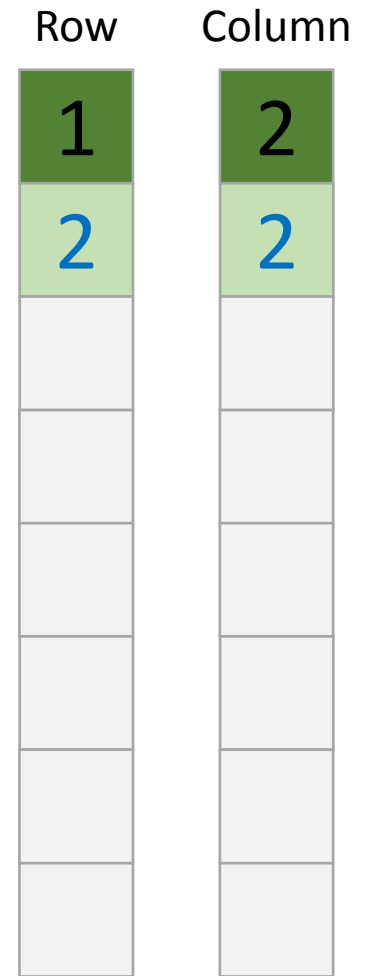
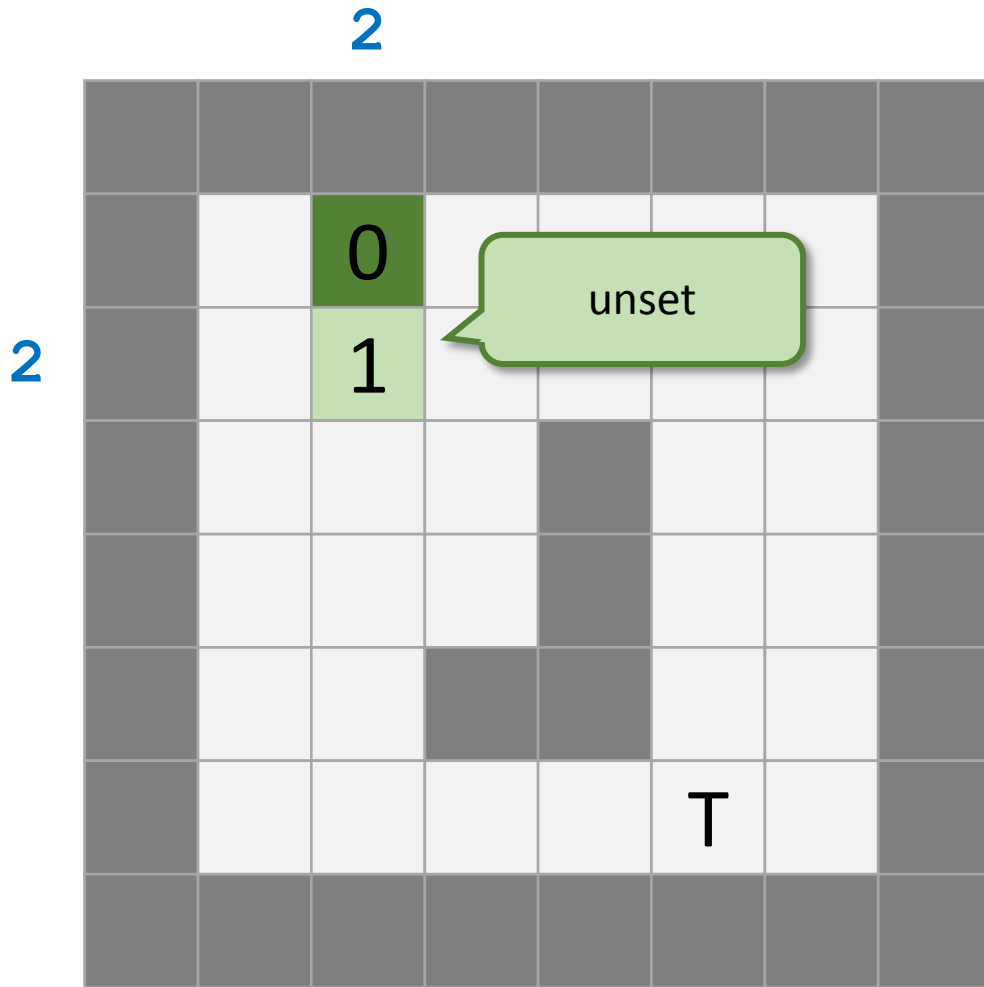
Faster Version



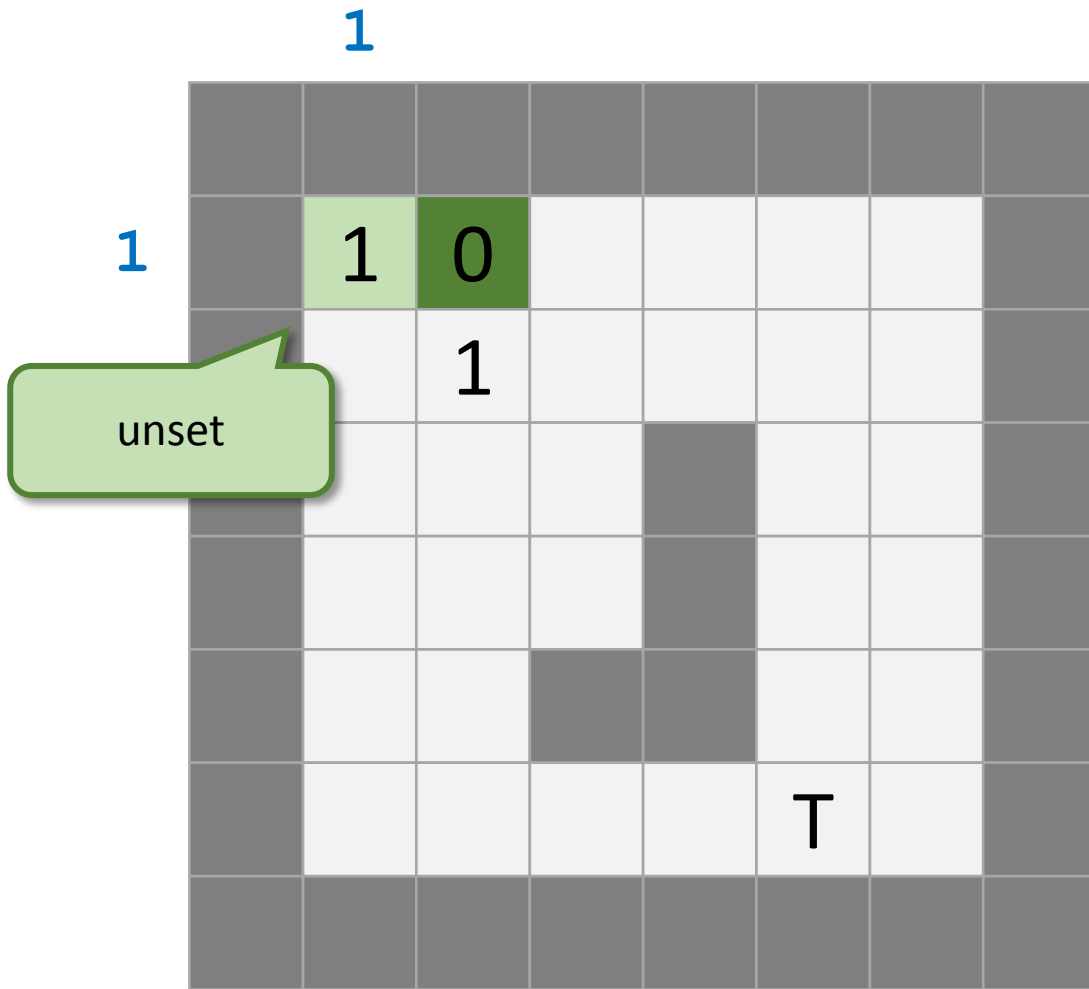
Faster Version



Faster Version

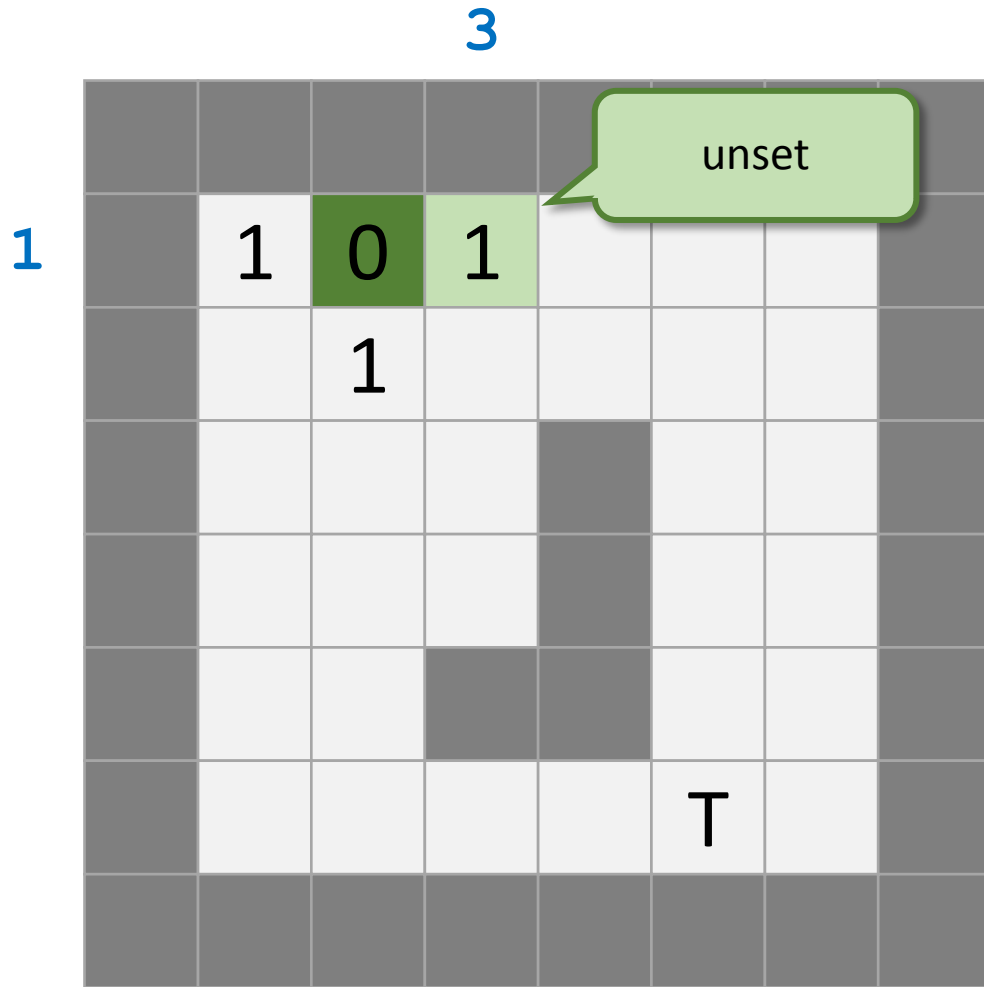


Faster Version



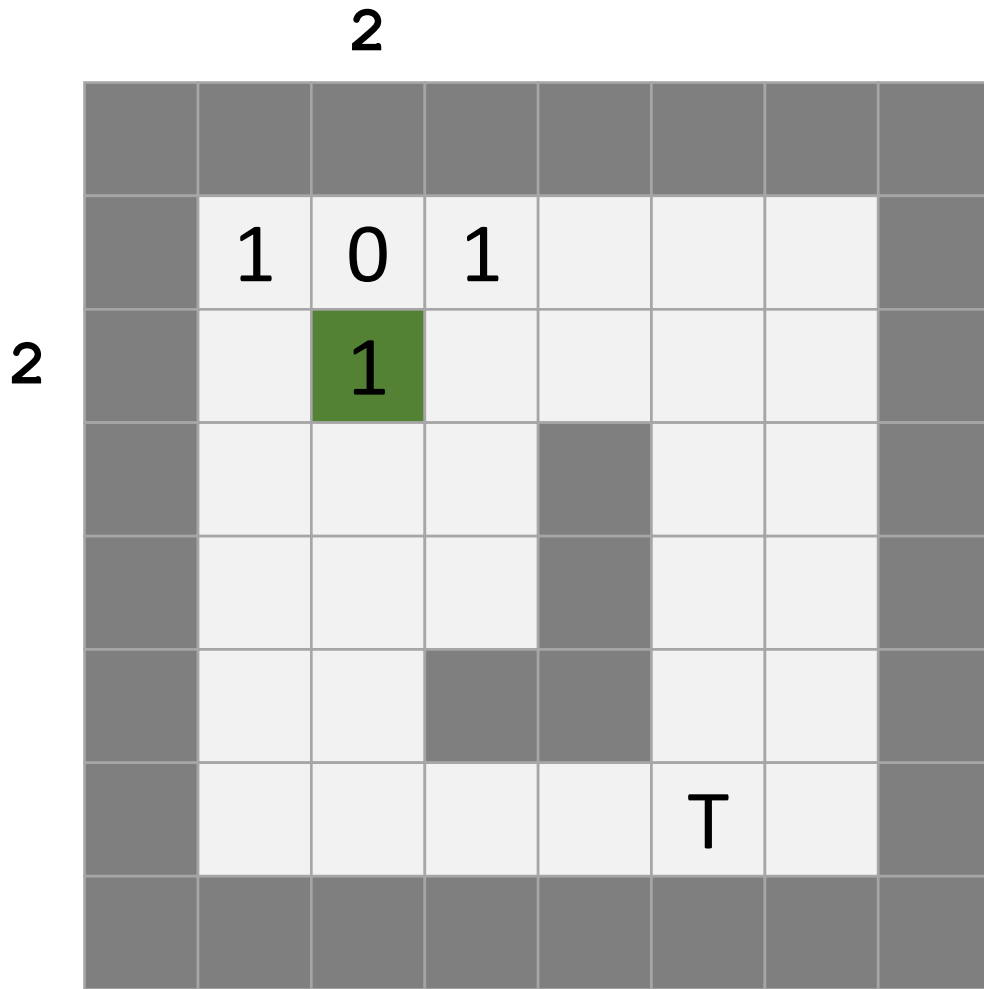
Row	Column
1	2
2	2
1	1

Faster Version



Row	Column
1	2
2	2
1	1
1	3

Faster Version



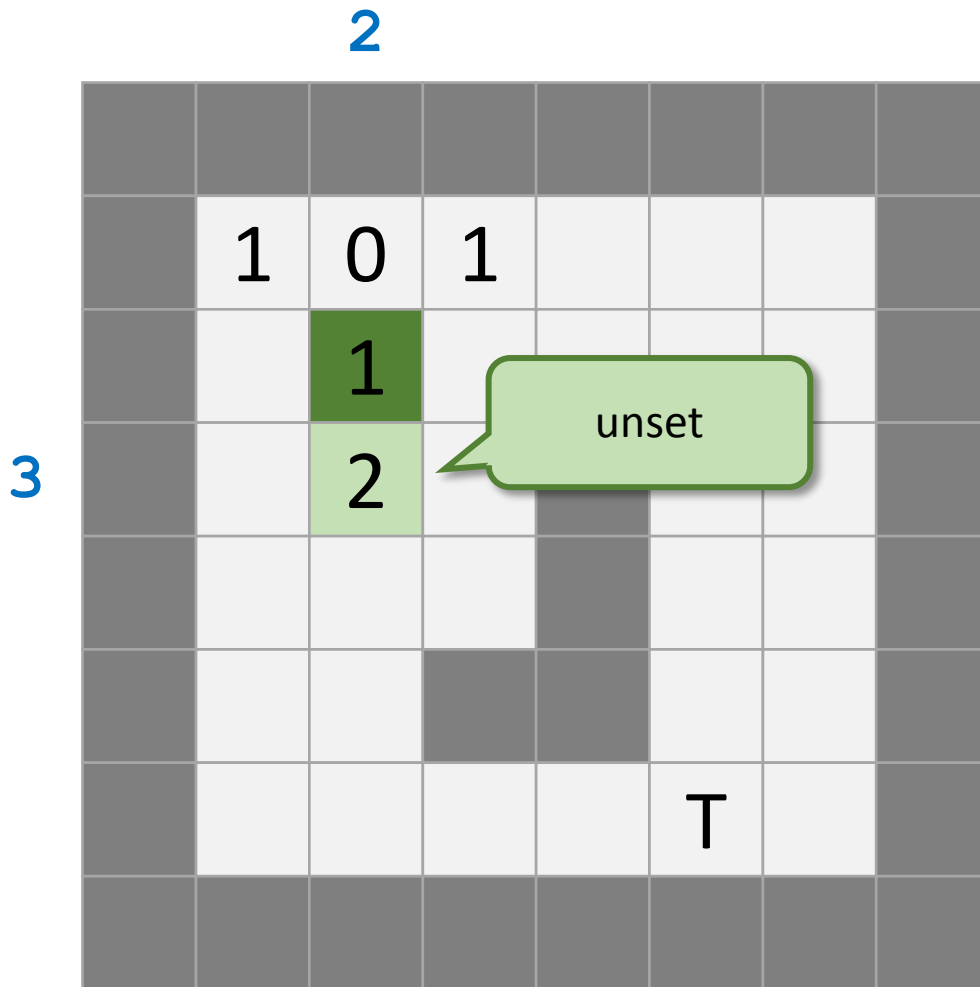
Row	Column
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2	2
1	1
1	3

Faster Version

	1	0	1				
		1					
					T		

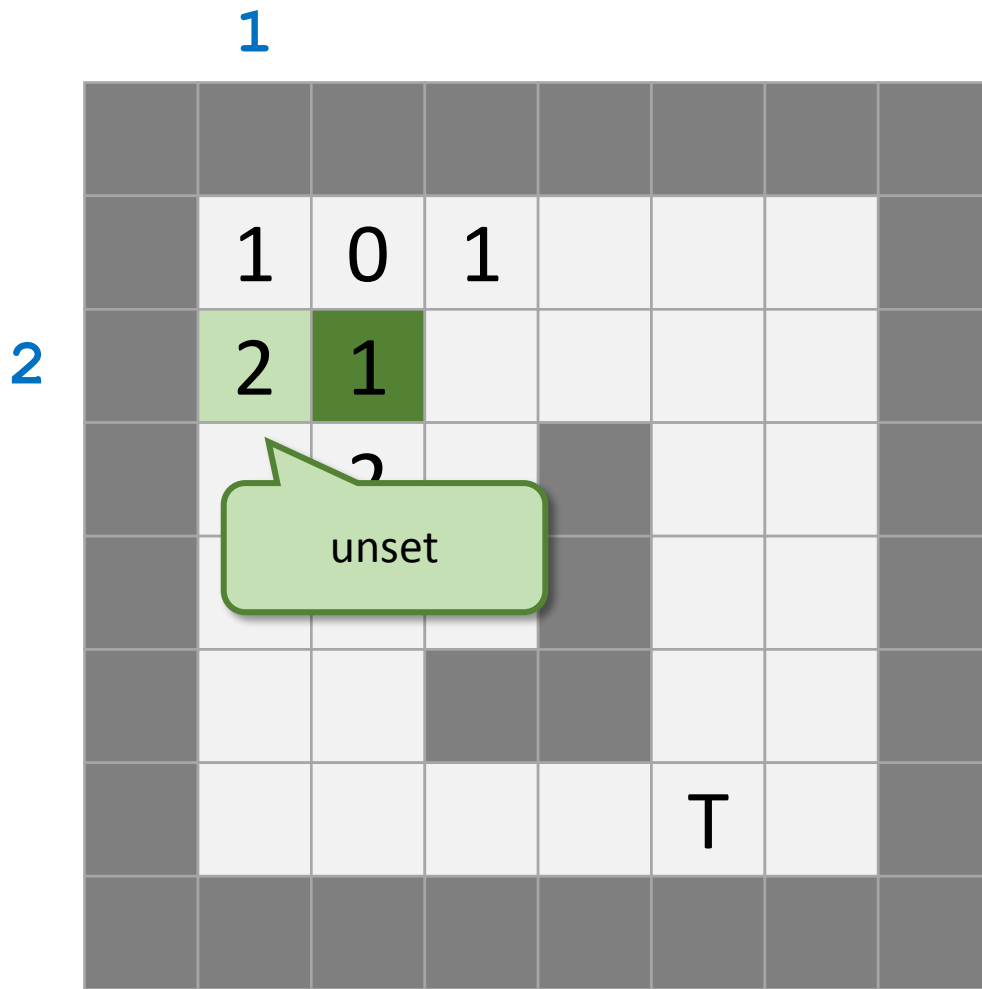
Row	Column
1	2
2	2
1	1
1	3

Faster Version



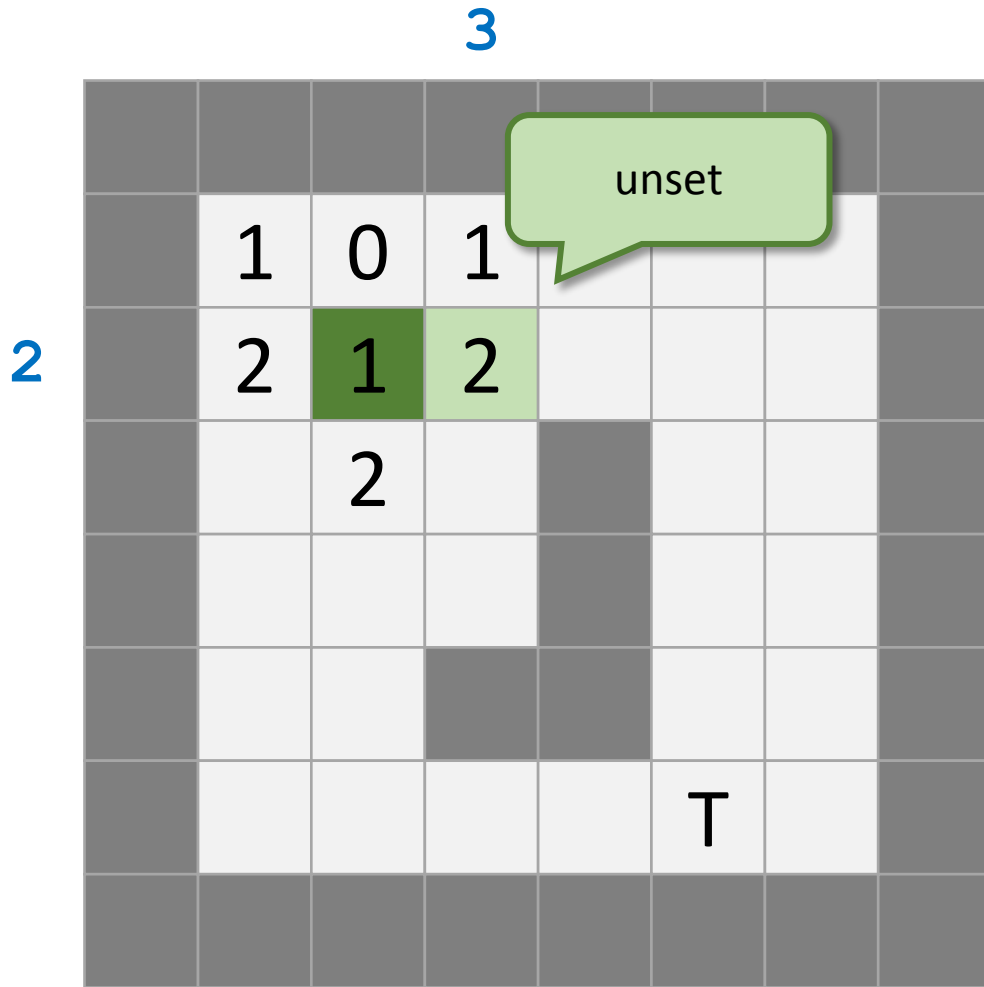
Row	Column
1	2
2	2
1	1
1	3
3	2

Faster Version



Row	Column
1	2
2	2
1	1
1	3
3	2
2	1

Faster Version



Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

1

1	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

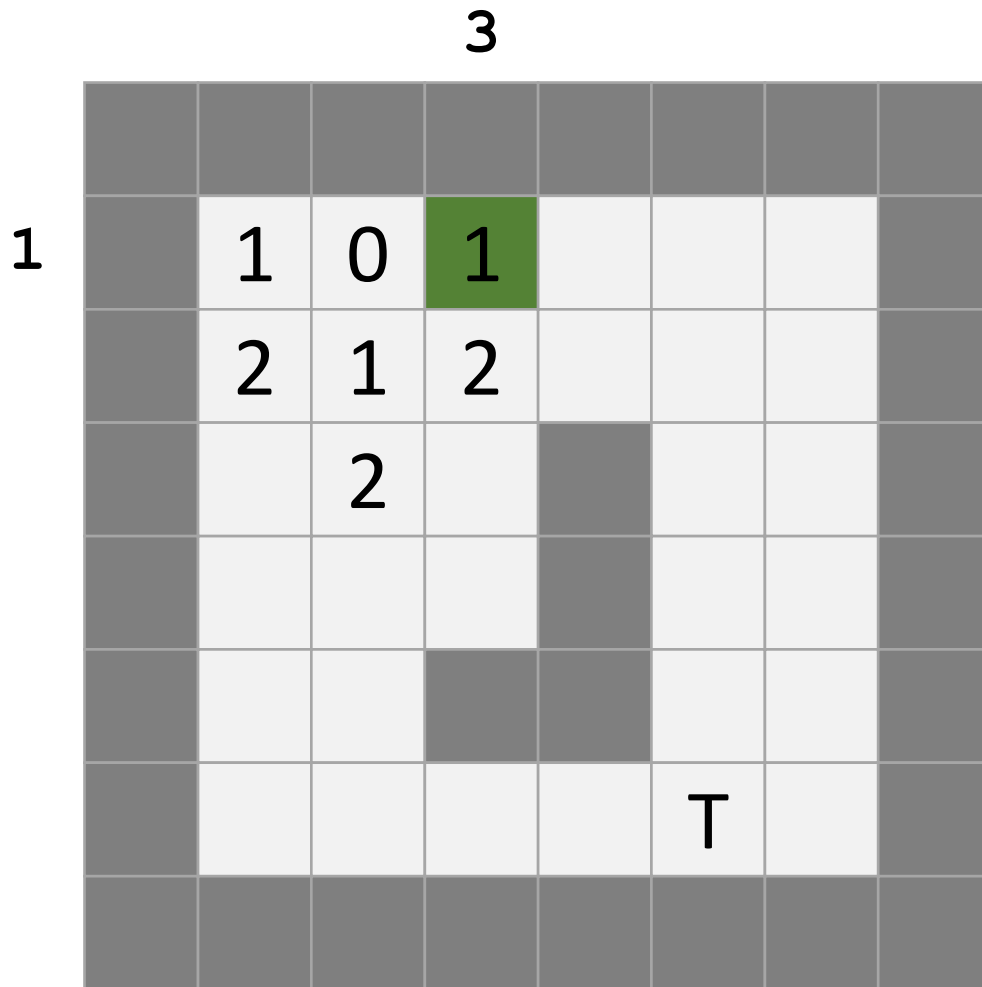
Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version



Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

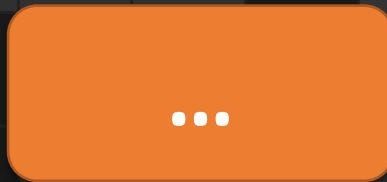
Faster Version

	1	0	1				
	2	1	2				
		2					
					T		

Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3

Faster Version

	1	0	1				
	2	1	2				
		2					
					T		



Row	Column
1	2
2	2
1	1
1	3
3	2
2	1
2	3