

ALL

Students in assembly hall are standing in grid layout  $n \times m$  where  $n$  is number of rows and  $m$  is number of columns to practice a new art. Since it is PET day students are wearing their house dress. There are two difference houses RED and BLUE. The RED house dress is denoted by 0 and BLUE with 1.

Teacher wanted to know the length of the longest chain involving only BLUE house students before they start practicing the new art.

Two Blue students are connected only if they are adjacent to each other by horizontally, vertically, or diagonally.

Note:  
0 = RED house student  
1 = BLUE house student

Example:

example1:

Input:

grid size:  
 $n = 3, m = 3$

grid layout:  
0 1 1  
0 0 0  
1 1 1

Language C

```
1 #include <math.h>
2 #include <stdio.h>
3 #include <string.h>
4 #include <stdlib.h>
5 #include <assert.h>
6 #include <limits.h>
7 #include <stdbool.h>
8
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12 }
```

Test Results

Custom Input

Desktop

1h 31m  
left

grid size:  
n = 3, m = 3



grid layout:  
0 1 1  
0 0 0  
1 1 1

ALL

Output:  
3



Explanation:

There are two chains in the grid. First chain is in row 0 and second is in row 3 holding 2 and 3 students respectively.

Input

grid size:  
n = 3, m = 4

grid layout:

0 1 1 0  
0 1 0 0  
1 1 1 0

Output:  
6

Explanation:

There is only one chain of present in the above grid of length 6.

Language C

```
1 #include <math.h>
2 #include <stdio.h>
3 #include <string.h>
4 #include <stdlib.h>
5 #include <assert.h>
6 #include <limits.h>
7 #include <stdbool.h>
8
9 int main()
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12
```

ALL grid size:  
n = 3, m = 4

① grid layout:  
0 1 1 0  
0 1 0 0  
1 1 1 0

1 Output:  
2 6

3 Explanation:  
There is only one chain of present in the above grid  
of length 6.

4 Input format:  
n  
m  
5 grid

6 input example:  
3  
4  
7 1 1 1 1  
0 1 1 0  
0 0 0 0

8 Constraints:  
1 <= n,m < 20

```
3 #include <string.h>
4 #include <stdlib.h>
5 #include <assert.h>
6 #include <limits.h>
7 #include <stdbool.h>
8
```

```
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
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```

Test Results

Custom Input