```
hestertzehun
Oct 21, 19 15:30
                                                                                 Page 1/7
    _____
   === Compiling with gcc -Wall -o ass2 *.c -lm
   ______
   ______
   === Compilation finished
   === Submission testing begins
   === test 1: ass2 < test7.txt
   === Output: matches expectations
    The grid has 10 rows and 10 columns.
   The grid has 39 block(s).
   The initial cell in the grid is [0,0].
   The goal cell in the grid is [9,0].
   The proposed route in the grid is: [0,0]->[1,0]->[2,0]->[3,0]->[4,0]->
   [4,1] \rightarrow [4,2] \rightarrow [5,2] \rightarrow [6,2] \rightarrow [7,2] \rightarrow
   [8,2] \rightarrow [9,2] \rightarrow [9,1] \rightarrow [9,0].
   There is a block on this route!
   0123456789
   01# # # # #
   1 * #
   2*# #######
   3*#
   4***######
   5#### #
         # ##
   6
      *#
            ###
     *# #
   9G**# # # #
    0123456789
   01# # # # #
   1*#
   2*# #######
   3*#*****
   4***#####
   5#### #***
      ***#*##
      *#***###
   7
     *# #
   8
   9G**# # # #
   [0,0] \rightarrow [1,0] \rightarrow [2,0] \rightarrow [3,0] \rightarrow [4,0] \rightarrow
   [4,1]->[4,2]->[3,2]->[3,3]->[3,4]->
[3,5]->[3,6]->[3,7]->[3,8]->[3,9]->
    [4,9]->[5,9]->[5,8]->[5,7]->[5,6]->
   [6,6] \rightarrow [7,6] \rightarrow [7,5] \rightarrow [7,4] \rightarrow [6,4] \rightarrow
   [6,3]->[6,2]->[7,2]->[8,2]->[9,2]->
   [9,1] -> [9,0].
   The route is valid!
   _____
   _____
   === test 2: ass2 < test8.txt
   === Output: differs from expectations
     The grid has 10 rows and 10 columns.
     The grid has 39 \operatorname{block}(s).
     The initial cell in the grid is [0,0].
     The goal cell in the grid is [9,0].
     The proposed route in the grid is:
     [0,0] \rightarrow [1,0] \rightarrow [2,0] \rightarrow [3,0] \rightarrow [4,0] \rightarrow
     [4,1] \rightarrow [4,2] \rightarrow [5,2] \rightarrow [6,2] \rightarrow [7,2] \rightarrow
      [8,2] \rightarrow [9,2] \rightarrow [9,1] \rightarrow [9,0].
     There is a block on this route!
65
     0123456789
     01# # # # #
     1*#
     2*# #######
70
     3 * #
     4***######
     5#### #
            # ##
```

```
hestertzehun
Oct 21, 19 15:30
                                                                                                                  Page 2/7
            *#
           *##
        9G**# # # #
         0123456789
        01# # # # #
80
        1*#
        2*# #######
        3*#*****
        4***#####
        5#### #****
6 ***#*##
85
            *#***###
           *##
        9G**# # # #
90
        [0,0] \rightarrow [1,0] \rightarrow [2,0] \rightarrow [3,0] \rightarrow [4,0] \rightarrow
        [4,1]->[4,2]->[3,2]->[3,3]->[3,4]->
[3,5]->[3,6]->[3,7]->[3,8]->[3,9]->
        [4,9]->[5,9]->[5,8]->[5,7]->[5,6]->
        [6,6] \rightarrow [7,6] \rightarrow [7,5] \rightarrow [7,4] \rightarrow [6,4] \rightarrow
95
        [6,3]->[6,2]->[7,2]->[8,2]->[9,2]->
        [9,1] -> [9,0].
        The route is valid!
        0123456789
100
        ΟI
        1#
        2*
        3*
        4 *
105
     +
        6
        8
        9G*#
     +
110
         0123456789
        0I*
        1#*
        2**
115
        3* ***
        5
        6
        8 **
        9G*#
        [0,0] \rightarrow [0,1] \rightarrow [1,1] \rightarrow [2,1] \rightarrow [2,0] \rightarrow
        [3,0] \rightarrow [4,0] \rightarrow [4,1] \rightarrow [4,2] \rightarrow [3,2] \rightarrow
        [3,3] \rightarrow [3,4] \rightarrow [3,5] \rightarrow [3,6] \rightarrow [3,7] \rightarrow
        [3,8] \rightarrow [3,9] \rightarrow [4,9] \rightarrow [5,9] \rightarrow [5,8] \rightarrow
        [5,7]->[5,6]->[6,6]->[7,6]->[7,5]->
        [7,4] \rightarrow [6,4] \rightarrow [6,3] \rightarrow [6,2] \rightarrow [7,2] \rightarrow
        [8,2] \rightarrow [8,1] \rightarrow [9,1] \rightarrow [9,0].
130
        The route is valid!
        0123456789
        0I*
        1 *
135
        2**
        3*
                   *#*
        4***
                    # *
                   *#**
        5
                  *#
        6
140
               ***#
        7
        8 **
     +
        9G*
        0123456789
145
       0I*
       1 *
2**
                    #
                    #
```

```
hestertzehun
Oct 21, 19 15:30
                                                                                                                         Page 3/7
        3*
                    *#
150
                   *#
        5
                   *#
        6
                    *#
        8 **
        9G*
155
        [0,0] \rightarrow [0,1] \rightarrow [1,1] \rightarrow [2,1] \rightarrow [2,0] \rightarrow
        [3,0] \rightarrow [4,0] \rightarrow [4,1] \rightarrow [4,2] \rightarrow [3,2] \rightarrow
        [3,3]->[3,4]->[3,5]->[3,6]->[4,6]->
        [5,6] \rightarrow [6,6] \rightarrow [7,6] \rightarrow [7,5] \rightarrow [7,4] \rightarrow
        [6,4] \rightarrow [6,3] \rightarrow [6,2] \rightarrow [7,2] \rightarrow [8,2] \rightarrow
        [8,1] \rightarrow [9,1] \rightarrow [9,0].
        The route is valid!
        _____
         0123456789
        0I*
        1 *
        2**
        3* ****##
        4***
                    ###
170
        5#########
            *** ###
        8 **
        9G*
     +
175
          0123456789
        0I*
        1 *
        2**
                    **#*
180
                ***##*
        3* **
                    ###*
        5########
                   ###*
185
                  **##*
        8 **
        9G*
        [0,0] \rightarrow [0,1] \rightarrow [1,1] \rightarrow [2,1] \rightarrow [2,0] \rightarrow
        [3,0] \rightarrow [4,0] \rightarrow [4,1] \rightarrow [4,2] \rightarrow [3,2] \rightarrow
        [3,3] \rightarrow [3,4] \rightarrow [3,5] \rightarrow [3,6] \rightarrow [2,6] \rightarrow
        [2,7] \rightarrow [1,7] \rightarrow [1,8] \rightarrow [1,9] \rightarrow [2,9] \rightarrow
        [3,9] \rightarrow [4,9] \rightarrow [5,9] \rightarrow [6,9] \rightarrow [7,9] \rightarrow
         [8,9] \rightarrow [9,9] \rightarrow [9,8] \rightarrow [9,7] \rightarrow [9,6] \rightarrow
        [8,6]->[7,6]->[7,5]->[7,4]->[6,4]->
195
        [6,3] \rightarrow [6,2] \rightarrow [7,2] \rightarrow [8,2] \rightarrow [8,1] \rightarrow
        [9,1] -> [9,0].
        The route is valid!
        _____
          0123456789
200
        0I*
        1 *
        2**
        3*
205
        5
        6
        8
        9G*
210
        ______
          0123456789
        0I*
        1 *
                #
        2**
                   * *
                #
        3* **#
        4*
               #**
        7
        8
                #
     + 9G*
                #
```

```
hestertzehun
Oct 21, 19 15:30
                                                                                         Page 4/7
       0123456789
      0I*
    +
      1 *
    +
      2**
      3* **#
      5
    +
    +
      6
        ** #
      8
      9G*
    +
235
      [0,0] \rightarrow [0,1] \rightarrow [1,1] \rightarrow [2,1] \rightarrow [2,0] \rightarrow
      [3,0] \rightarrow [4,0] \rightarrow [4,1] \rightarrow [4,2] \rightarrow [3,2] \rightarrow
      [3,3] \rightarrow [4,3] \rightarrow [5,3] \rightarrow [6,3] \rightarrow [6,2] \rightarrow
      [7,2] \rightarrow [8,2] \rightarrow [8,1] \rightarrow [9,1] \rightarrow [9,0].
      The route is valid!
240
      _____
    === test 3: ass2 < test9.txt
    === Output: differs from expectations
      245
      The grid has 15 rows and 30 columns.
      The grid has 0 block(s).
      The initial cell in the grid is [6,1].
      The goal cell in the grid is [6,28].
250
      The proposed route in the grid is:
      [6,1] \rightarrow [6,2] \rightarrow [6,3] \rightarrow [6,4] \rightarrow [6,5] \rightarrow
      [6,6] \rightarrow [6,7] \rightarrow [6,8] \rightarrow [6,9] \rightarrow [6,10] \rightarrow
      [6,11] \rightarrow [6,12] \rightarrow [6,13] \rightarrow [6,14] \rightarrow [6,15] \rightarrow
      [6,16]->[6,17]->[6,18]->[6,19]->[6,20]->
255
      [6,21]->[6,22]->[6,23]->[6,24]->[6,25]->
      [6,26] \rightarrow [6,27] \rightarrow [6,28].
      The route is valid!
      012345678901234567890123456789
260
      2
      3
      4
265
        I*********
      7
      8
      9
270
      1
      2
      3
      012345678901234567890123456789
      0
    +
      3
      6#I#******##G#
      8
285
      9
      0
      3
    +
290
      012345678901234567890123456789
      0
    +
    +
      1
295
      2
    +
```

```
hestertzehun
Oct 21, 19 15:30
                                                                                                               Page 5/7
       5
       6#I#******##G#
300
       8
        9
        0
305
        3
       [6,1]->[5,1]->[5,2]->[5,3]->[6,3]->
[6,4]->[6,5]->[6,6]->[6,7]->[6,8]->
310
        [6,9] \rightarrow [6,10] \rightarrow [6,11] \rightarrow [6,12] \rightarrow [6,13] \rightarrow
        [6,14] \rightarrow [6,15] \rightarrow [6,16] \rightarrow [6,17] \rightarrow [6,18] \rightarrow
        [6,19]->[6,20]->[6,21]->[6,22]->[6,23]->
        [6,24]->[6,25]->[6,26]->[5,26]->[5,27]->
       [5,28]->[6,28].
       The route is valid!
        ______
         012345678901234567890123456789
        0
320
     +
       2
     +
       3
     +
        4
       5
325
       7
        8
        9
        0
330
       1
        2
335
         012345678901234567890123456789
        0
     +
       1
        2
       3
        4
        5
                  **#*
        6
345
       8
        9
        0
       1
        2
        3
350
       [6,1] \rightarrow [5,1] \rightarrow [5,2] \rightarrow [5,3] \rightarrow [6,3] \rightarrow
        [6,4] - > [6,5] - > [6,6] - > [5,6] - > [5,7] - >
        [4,7] \rightarrow [4,8] \rightarrow [4,9] \rightarrow [5,9] \rightarrow [6,9] \rightarrow
355
        [6,10] \rightarrow [6,11] \rightarrow [6,12] \rightarrow [6,13] \rightarrow [6,14] \rightarrow
        [6,15] \rightarrow [6,16] \rightarrow [6,17] \rightarrow [6,18] \rightarrow [7,18] \rightarrow
        [8,18] \rightarrow [9,18] \rightarrow [9,19] \rightarrow [9,20] \rightarrow [8,20] \rightarrow
       [7,20]->[6,20]->[6,21]->[6,22]->[6,23]->
        [6,24]->[6,25]->[6,26]->[5,26]->[5,27]->
360
        [5,28] -> [6,28].
       The route is valid!
        _____
         012345678901234567890123456789
        0
365
        2
       3
                                              *###
       5
     +
```

Oct 2	21, 19 15:30		hestertzehun	Printed by Alistair MOFF) Page 6/7
-		*******************#G# * * * ###		-
	+ 8	* *		
1	+   9 +   0	***		
-	+   1			
	+   2 +   3			
	+   4 +			
1	1	901234567890123456789		
	+   0 +   1			
-	+ 2			
	+   3 +   4 ***	*		
-	+ 5 *** ** * + 6 I ****	* *### *******#G#		
] -	+ 7	* * ###		
390 -	+   8 +   9	* * ***		
-	+ 0			
-	+   1 +   2			
1	+   3 +   4			
] -	+			
-	+ The route 0 + =======	cannot be repaired! 		
1	1.0	901234567890123456789		
_	+ 0 + 1	‡		
-	+ 2 ‡	‡		
	+   3 +   4 **‡			
	+ 5 *** **	***   *****		
-	+ 7 ‡	* * *		
410	+   8 +   9	‡		
1	+   0 #			
1	+ 2 ‡	‡		
	+   3 +   4	‡		
-	+	001004565000100456500		
1	1	901234567890123456789		
	+ 1 *‡ + 2 *‡	•		
1	+ 3 * ‡	<u></u>		
1	+   4			
-	+ 6 I **** ‡	+****** *** G		
1	+   7 +   8	<b>* *</b>		
		<b>***</b>		
-	+ 1	‡		
1		‡ ‡		
-	+ 4	•		
-		 l]->[5,2]->[5,3]->[6,3		
	+ [6,4]->[6,5	5]->[6,6]->[5,6]->[5, 3]->[3,8]->[2,8]->[1,8	7]->	
-	+ [0,8]->[0,9	9]->[0,10]->[1,10]->[2	2,10]->	
		, 10]->[5,10]->[6,10]-; , 13]->[6,14]->[6,15]-;		
440 -	+ [6,17]->[6,	,18]->[7,18]->[8,18]-	>[9,18]->	
		, 20]->[8, 20]->[7, 20]-; , 22]->[6, 23]->[6, 24]-;		
-		, 26]->[5, 27]->[5, 28]-:		
1	· line toute ]	rs variu:		

```
hestertzehun
Oct 21, 19 15:30
                                                                                                                 Page 7/7
         012345678901234567890123456789
        n
                     *#*
     +
                     *#*
     +
        1
                     *#*
        3
     +
450
        5
                  ** #*
          I ****
        6
                      #****### ##### G
                      #
                                    # #
        8
                      #
                                    # #
455
        9
        0
                      #
     +
        2
460
         012345678901234567890123456789
                     *#
       0
                     *#
465
       2
                     *#
     +
                     *#
     +
                    **#
                  ***#
        5
                              *********
                    *#****### ###### G*
     +
        6
        7
                     *#*
                                   # #
     +
                     *#*
                                    # #
     +
        8
                     *#*
        9
                                   ###
     +
                     *#*
475
     +
        1
                     *#*
        3
     +
        [6,1] \rightarrow [5,1] \rightarrow [5,2] \rightarrow [5,3] \rightarrow [6,3] \rightarrow
480
        [6,4] \rightarrow [6,5] \rightarrow [6,6] \rightarrow [5,6] \rightarrow [5,7] \rightarrow
        [4,7] \rightarrow [4,8] \rightarrow [3,8] \rightarrow [2,8] \rightarrow [1,8] \rightarrow
        [0,8] \rightarrow [1,8] \rightarrow [2,8] \rightarrow [3,8] \rightarrow [4,8] \rightarrow
        [5,8]->[6,8]->[7,8]->[8,8]->[9,8]->
        [10,8] \rightarrow [11,8] \rightarrow [12,8] \rightarrow [13,8] \rightarrow [14,8] \rightarrow
485
        [14,9] \rightarrow [14,10] \rightarrow [13,10] \rightarrow [12,10] \rightarrow [11,10] \rightarrow
        [10,10] \rightarrow [9,10] \rightarrow [8,10] \rightarrow [7,10] \rightarrow [6,10] \rightarrow
        [6,11] \rightarrow [6,12] \rightarrow [6,13] \rightarrow [6,14] \rightarrow [5,14] \rightarrow
        [5,15]->[5,16]->[5,17]->[5,18]->[5,19]->
[5,20]->[5,21]->[5,22]->[5,23]->[5,24]->
        [5,25]->[4,25]->[4,26]->[4,27]->[4,28]->
        [4,29] \rightarrow [5,29] \rightarrow [6,29] \rightarrow [6,28].
       The route is valid!
        _____
     ______
     === Submission testing ended
     ______
```