

test1.output

Tue Jul 24 05:49:09 2018

This particular output is based on the random seed of 200 being given to initialize().

```
| 0 1 2 3 4 5 6 7
-----
0 | . . . . . . .
1 | . . . . . . .
2 | . . . . . . .
3 | . . . . . . .
4 | . . . . . . .
5 | . . . . . . .
6 | . . . . . . .
7 | . . . . . . .
```

A dot indicates that a "grid cell" is not yet uncovered.

```
Select a cell. Row value (a digit between 0 and 7): 0
Select a cell. Column value (a digit between 0 and 7): 0
| 0 1 2 3 4 5 6 7
-----
```

Asking for user input.

```
0 | . . . . .
1 | . . . . .
2 | . . . . .
3 | . . . . .
4 | . . . . .
5 | . . . . .
6 | . . . . .
7 | . . . . .
```

It turns out that there was no mine at 0,0, and that the surrounding grid cells also had no mines. Therefore all of the surrounding cells are also cleared in the display.

```
Select a cell. Row value (a digit between 0 and 7): 7
Select a cell. Column value (a digit between 0 and 7): 6
| 0 1 2 3 4 5 6 7
-----
```

```
0 | . . . . .
1 | . . . . .
2 | . . . . .
3 | . . . . .
4 | . . . . .
5 | . . . . .
6 | . . . . .
7 | . . . . . 1 .
```

At grid cell 7,6, the program has detected that there is a mine adjacent. We do not know if the mine is at 7,5, or at 7,7, or in the cells from 6,5 to 6,7. However, there *is* one mine. Therefore the value 1 is placed at 7,6, and no further cells are cleared.

```
Select a cell. Row value (a digit between 0 and 7): 4
Select a cell. Column value (a digit between 0 and 7): 4
| 0 1 2 3 4 5 6 7
-----
```

```
0 | . . . . .
1 | . . . . .
2 | . . . . .
3 | . . . . .
4 | . . . . 2 . .
5 | . . . . .
6 | . . . . .
7 | . . . . . 1 .
```

At grid cell 4,4 there are *two* mines in adjacent grid cells.

```
Select a cell. Row value (a digit between 0 and 7): 2
Select a cell. Column value (a digit between 0 and 7): 7
| 0 1 2 3 4 5 6 7
-----
```

```
0 | . . . . .
1 | . . . . .
2 | . . . . .
3 | . . . . .
4 | . . . . 2 . .
5 | . . . . .
6 | . . . . .
7 | . . . . . 1 .
```

```
Select a cell. Row value (a digit between 0 and 7): 0
Select a cell. Column value (a digit between 0 and 7): 7
```

	0	1	2	3	4	5	6	7
0								
1								
2								
3								
4					2			
5								
6								
7							1	

Select a cell. Row value (a digit between 0 and 7): 6

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0								
1								
2								
3								
4					2			
5								
6			2					
7							1	

Select a cell. Row value (a digit between 0 and 7): 3

Select a cell. Column value (a digit between 0 and 7): 5

	0	1	2	3	4	5	6	7
0								
1								
2								
3								
4								
5								
6			2					
7							1	

At grid cell 3,5 all of its surrounding cells have no mines. In clearing the surrounding cells, note that the previous value of 2 appeared at 4,4 has been erased. You are free to either keep the "2" or to erase it as shown here.

Select a cell. Row value (a digit between 0 and 7): 7

Select a cell. Column value (a digit between 0 and 7): 0

	0	1	2	3	4	5	6	7
0								
1								
2								
3								
4								
5								
6			2					
7	1						1	

Select a cell. Row value (a digit between 0 and 7): 7

Select a cell. Column value (a digit between 0 and 7): 3

	0	1	2	3	4	5	6	7
0								
1								
2								
3								
4								
5								
6			2					
7	1			2			1	

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0			.	.	.	.
1			.	.	.	.
2		.	.	.	.
3		.	.	.	.
4		.	.	.	.			.
5		.	.	1	.	.	.	.
6		.	.	2	.	.	.	.
7	1	.	.	2	.	.	1	.

Select a cell. Row value (a digit between 0 and 7): 2

Select a cell. Column value (a digit between 0 and 7): 0

	0	1	2	3	4	5	6	7
0			.	.	.	.
1			.	.	.	.
2	1	.	.	.				
3	.	.	.	.
4	.	.	.	.				.
5	.	.	1	.	.	.	.	.
6	.	.	2	.	.	.	.	.
7	1	.	.	2	.	.	1	.

Select a cell. Row value (a digit between 0 and 7): 0

Select a cell. Column value (a digit between 0 and 7): 5

	0	1	2	3	4	5	6	7
0			.	.	.	1		
1			.	.	.	.
2	1	.	.	.				
3	.	.	.	.
4	.	.	.	.				.
5	.	.	1	.	.	.	.	.
6	.	.	2	.	.	.	.	.
7	1	.	.	2	.	.	1	.

Select a cell. Row value (a digit between 0 and 7): 0

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0			1	.	.	1		
1			.	.	.	.
2	1	.	.	.				
3	.	.	.	.
4	.	.	.	.				.
5	.	.	1	.	.	.	.	.
6	.	.	2	.	.	.	.	.
7	1	.	.	2	.	.	1	.

Select a cell. Row value (a digit between 0 and 7): 3

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0			1	.	.	1		
1			.	.	.	.
2	1	.	.	.				
3	.	.	3	.				
4	.	.	.	.				.
5	.	.	1	.	.	.	.	.
6	.	.	2	.	.	.	.	.
7	1	.	.	2	.	.	1	.

Ooh, that was close. At grid cell 3,2 there are three mines in adjacent cells. Ugh.

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 7

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	1	.	.	.	.	1
6	.	.	2	.	.	.	.	.
7	1	.	.	2	.	.	1	.

Select a cell. Row value (a digit between 0 and 7): 6

Select a cell. Column value (a digit between 0 and 7): 7

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	1	.	.	.	.	1
6	.	.	2	.	.	.	.	1
7	1	.	.	2	.	.	1	.

Select a cell. Row value (a digit between 0 and 7): 7

Select a cell. Column value (a digit between 0 and 7): 5

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	1	.	.	.	.	1
6	.	.	2	.	.	.	.	1
7	1	.	.	2	.	1	1	.

Select a cell. Row value (a digit between 0 and 7): 7

Select a cell. Column value (a digit between 0 and 7): 4

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	1	.	.	.	.	1
6	.	.	2	.	.	.	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 0

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4	.	.	.	.	.	.	.	.
5			1	.	.	.	.	1
6			2	.	.	.	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 6

Select a cell. Column value (a digit between 0 and 7): 5

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4			.	.	.	.	.	.
5			1	.	.	.	.	1
6			2	.	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 6

Select a cell. Column value (a digit between 0 and 7): 3

	0	1	2	3	4	5	6	7
0			1	.	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4			.	.	.	.	.	.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 0

Select a cell. Column value (a digit between 0 and 7): 3

	0	1	2	3	4	5	6	7
0			1	2	.	.	1	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4			.	.	.	.	.	.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 0

Select a cell. Column value (a digit between 0 and 7): 4

	0	1	2	3	4	5	6	7
0			1	2	2	1	.	
1			.	.	.	.	.
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4			.	.	.	.	.	.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 1

Select a cell. Column value (a digit between 0 and 7): 5

	0	1	2	3	4	5	6	7
0			1	2	2	1	.	
1			.	.	.	.	1	
2	1	.	.	.	.	.	.
3	.	.	3	.	.	.	.
4			.	.	.	.	.	.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 1

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	.	.	.				
3	.	.	3	.				
4			.	.				.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 2

Select a cell. Column value (a digit between 0 and 7): 1

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	.	.				
3	.	.	3	.				
4			.	.				.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 3

Select a cell. Column value (a digit between 0 and 7): 0

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	.	.				
3	1	.	3	.				
4			.	.				.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 2

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	.				
3	1	.	3	.				
4			.	.				.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 2

Select a cell. Column value (a digit between 0 and 7): 3

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	3				
3	1	.	3	.				
4			.	.				.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 4

Select a cell. Column value (a digit between 0 and 7): 2

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	3				
3	1	.	3	.				
4			3	.				.
5			1	.	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 3

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	3				
3	1	.	3	.				
4			3	.				.
5			1	2	.	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 4

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	3				
3	1	.	3	.				
4			3	.				.
5			1	2	2	.	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 5

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	3				
3	1	.	3	.				
4			3	.				.
5			1	2	2	1	.	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 5

Select a cell. Column value (a digit between 0 and 7): 6

	0	1	2	3	4	5	6	7
0			1	2	2	1		
1			1	.	.	1		
2	1	1	3	3				
3	1	.	3	.				
4			3	.				.
5			1	2	2	1	1	1
6			2	2	.	1	.	1
7	1	.	.	2	1	1	1	.

Select a cell. Row value (a digit between 0 and 7): 6

Select a cell. Column value (a digit between 0 and 7): 6

```
| 0 1 2 3 4 5 6 7
-----
0 |      1 2 2 1
1 |      1 M M 1
2 | 1 1 3 3
3 | 1 M 3 M
4 |      3 M          M
5 |      1 2 2 1 1 1
6 |      2 2 M 1 1 1
7 | 1 M M 2 1 1 1 M
```

By uncovering cell 6,6, we now have a board where cells are either uncovered, or they are covered with a mine underneath. Since all cells without mines have been uncovered, the player wins the game. (You may prepare a suitably joyous message for this. This test output is rather bland).