PROJECT 4: BACKTRACKING TEST MAZE
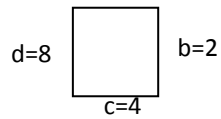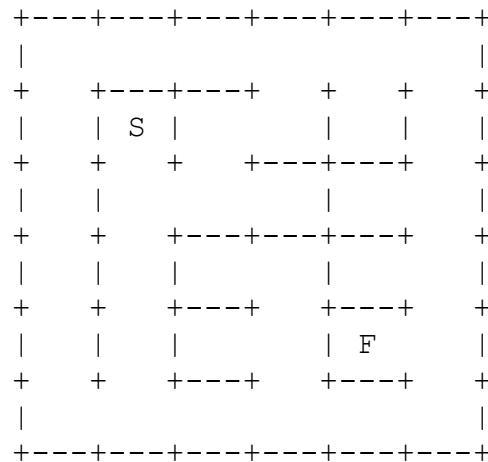
For the maze each cell can have 4 walls. The walls are encoded by numbers as specified below:

d=8 [ ] b=2
c=4

A single cell with 4 walls, labeled a, b, c, d and corresponding values for each wall.

The matrix cell stores the combined value for walls that are present in a cell. For example, if the walls that are present in a single cell includes a and d, meaning that b and c are open, then the value in the matrix for the corresponding cell is 1+8=9.

9	5	5	1	1	3
10	11	9	6	14	10
10	8	4	7	13	2
10	10	13	3	13	2
10	10	13	2	13	2
12	4	5	4	5	6

```
+---+---+---+---+---+---+
|                       |
+   +---+---+   +   +   +
|   | S |       |   |   |
+   +   +   +---+---+   +
|   |           |       |
+   +   +---+---+---+   +
|   |   |       |       |
+   +   +---+   +---+   +
|   |   |       | F     |
+   +   +---+   +---+   +
|                       |
+---+---+---+---+---+---+
```

```
1      N M
2      x y
3      x y
4      C0,0  C0,1  C0,2 …. C0,M-1
5      C1,0  C1,1  C1,2 …. C1,M-1
…      …
N+3    CN-1,0  CN-1,1  CN-1,2 …. CN-1,M-1
```

In line 1, N is the number of rows, M the number of columns in maze matrix. Coordinates x and y specify the start location in line 2 and the end location in line 3. c_{ij} specifies the value for the walls in location i,j in the matrix.

The maze illustrated on page 1 would be represented in the file as follows:

```
6 6
1 1
4 4
9 5 5 1 1 3
10 11 9 6 14 10
10 8 4 7 13 2
10 10 13 3 13 2
10 10 13 2 13 2
12 4 5 4 5 6
```