2.

(6, 4)

(6, 3)

(6, 5)

(7, 5)

(8, 5)

(8, 6)

(8, 7)

(8, 8)

(7, 8)

(6, 6)

(5, 4)

(4, 4)

4.

(6, 4)

(5, 4)

(6, 5)

(6, 3)

(4, 4)

(6, 6)

(7, 5)

(3, 4)

(4, 5)

(8, 5)

(2, 4)

(4, 6)

The two algorithms differ from each other in the order in which they examine neighboring cells of the maze. A stack is a LIFO data type, so the last cell neighboring the current one added to the stack is the first one examined on the next iteration of the path-finding algorithm. On the other hand, a queue is a FIFO data type, so the first cell added is the first one examined on the next iteration. For example, in a maze

“XXXXX”

“X...X”

“X.X.X”

“XX..X”

with starting point (1, 1) and endpoint (3, 2), the first cell examined by both is (1, 1). With the directional order given in the spec (NESW), the stack version will next examine (2, 1), while the queue version will next examine (1, 2).