## Problem 2

The first 12 coordinates being popped are: (from first to last)

6, 4

6, 3

6, 5

7, 5

8, 5

8, 6

8, 7

8, 8

7, 8

6, 6

5, 4

4, 4

## Problem 4

The first 12 coordinates being popped are: (from first to last)

6, 4

5, 4

6, 5

6, 3

4, 4

6, 6

7, 5

3, 4

4, 5

8, 5

2, 4

4, 6

When the stack algorithm encounters a detour in the maze, it will follow one of the pathways until it reaches a dead end then turn back to the detour and follow another pathway.

This is because in a stack, the newly visited tile is put on the top. In the next iteration it will check this newly visited tile first, resulting in continuous motion along a path.

For the queue algorithm, since newly visited tiles are inserted in the back the queue would ensure that it visits every neighbor of a tile before moving on to the new tile. When the queue algorithm encounters a detour, it visits every pathway available, advancing one tile at a time for each pathway consecutively.