**Homework 2 Supplemental Questions**

**Question 2**

The first 12 coordinates that pop off the stack are:

(3,5)

(3,6)

(3,4)

(2,4)

(1,4)

(1,3)

(1,2)

(1,1)

(2,1)

(3,3)

(4,5)

(5,5)

**Question 4**

The first 12 coordinates to pop off from the queue are:

(3,5)

(4,5)

(3,4)

(3,6)

(5,5)

(3,3)

(2,4)

(6,5)

(5,4)

(1,4)

(7,5)

(5,3)

* The two algorithms differ in the order in the in which possible paths are evaluated at any given position.
* The difference between the two approaches is that a stack is LIFO (Last In First Out) while a queue is FIFO (First In First Out). Due to this, the order in which the maze is traversed is completely different in the two cases.
* When solving a maze with a stack, the searching algorithm is called “depth-first” while when searching with a queue, it’s called a “breadth-first algorithm”.