Homework 2

2. The first 12 coordinates that are popped 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)

4. The first 12 coordinates that are popped off 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 are different because one of them uses a stack and the other one uses a queue. The stack algorithm goes through each point in one direction before going back to the original point to explore another point in a different direction. The queue algorithm goes the points through all directions at the same time. The stack algorithm goes through a “first in first out” method while the queue algorithm goes through a “first in last out” method.