Gautam Anand

405965589

Homework 2

2)

(3,4)

(3,3)

(3,5)

(2,5)

(1,5)

(1,6)

(1,7)

(1,8)

(2,8)

(3,6)

(4,4)

(5,4)

4)

(3,4)

(4,4)

(3,5)

(3,3)

(5,4)

(3,6)

(2,5)

(6,4)

(5,5)

(1,5)

(7,4)

(5,6)

The two algorithms differ in that when using a stack, when pushing an element onto the stack. That is the first element that is popped off the stack. This means that the last coordinate pushed onto the stack will be the first coordinate to be popped off the stack.

When using a queue, when pushing an element onto the queue, the element will go to the end of the queue, and the first element in the queue will be popped when popping off of the queue.

This is why the 12 coordinates above for queue and stack are different, because with stacks, the last coordinate that is added will be visited first, and with queues, the first coordinate that is added will be visited first.