Maeneka Grewal – 204901948

CS32 Nachenberg

Homework 2

2. The first 12 coordinates popped off the stack are:

(4,3)

(3,3)

(5,3)

(5,2)

(5,1)

(6,1)

(7,1)

(8,1)

(8,2)

(6,3)

(4,4)

(4,5)

4. The first 12 coordinates popped off the queue are:

(4,3)

(4,4)

(5,3)

(3,3)

(4,5)

(6,3)

(5,2)

(4,6)

(5,5)

(5,1)

(4,7)

(6,5)

The stack algorithm explores each possible cell to its fullest extent, aka the depth search. The queue algorithm explores the cells and their next possible cell one at a time, aka the breadth search. This is because stack is the ‘last in, first out’ method whereas queue is ‘first in, first out’.