Computer Science Homework 2

# Problem 2

The first 12 coordinates popped off the stack are

(6, 4)

(6, 3)

(6, 5)

(7, 5)

(8, 5)

(8, 6)

(8, 7)

(8, 8)

(7, 8)

(6, 6)

(6, 4)

(4, 4)

# Problem 4

The first 12 coordinates popped off the stack are

(6, 4)

(5, 4)

(6, 5)

(6, 3)

(4, 4)

(6, 6)

(7, 5)

(3, 4)

(4, 5)

(8, 5)

(2, 4)

(4, 6)

The algorithm that uses queue evenly spreads out in all directions from the starting point, to search the endpoint (breadth-first search). However, the algorithm that uses stack visits all possible coordinates in a particular direction before moving on to other directions (depth-first search).