1. First 12 items popped from stack

(6, 4)

(6, 3)

(6, 5)

(7, 5)

(8, 5)

(8, 6)

(8, 7)

(8, 8)

(7, 8)

(6, 6)

(5, 4)

(4, 4)

1. First 12 items dequeued from queue

(6, 4)

(5, 4)

(6, 5)

(6, 3)

(4, 4)

(6, 6)

(7, 5)

(3, 4)

(4, 5)

(8, 5)

(2, 4)

(4, 6)

How do the two algorithms differ from each other?

A stack is a first-in-first-out algorithm whereas a queue is a last-in-first-out algorithm. Because of this, a stack goes deep into the first path it finds, hitting a dead-end before looking at any other path. A queue, on the other hand, expands in a circle, constantly increasing the radius of the area explored.