First 12 coords popped off the stack

1. (3,5)
2. (3,6)
3. (3,4)
4. (2,4)
5. (1,4)
6. (1,3)
7. (1,2)
8. (1,1)
9. (2,1)
10. (3,3)
11. (4,5)
12. (5,5)

First 12 coords popped off the queue

1. (3,5)
2. (4,5)
3. (3,4)
4. (3,6)
5. (5,5)
6. (3,3)
7. (2,4)
8. (6,5)
9. (5,4)
10. (1,4)
11. (7,5)
12. (5,3)

Going through the maze with a stack does a depth-first search, meaning that the computer is going as far as it can in one direction before it starts to explore another direction. Going through the maze with a queue does a breadth-first search. The breadth first search expands out concentrically, and searches multiple possible paths in subsequent steps.