Homework 2

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# Question 2

First 12 coordinates popped off the stack are:

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)

# Question 4

First 12 coordinates popped off the queue are:

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)

This difference in coordinates popped is because mazequeue uses a queue, compared to a stack in mazestack, to implement the pathExists function. Therefore, the coordinates are popped in a first-in-first-out order, leading to what is called a breadth first search.