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Homework 2

**#2** The first 11 (r,c) coordinates popped off the **stack**:

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

**#4** The first 11 (r,c) coordinates popped off the **queue**:

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

The two algorithms differ from each other since for the stack, when a coordinate is pushed onto it, it goes to the top. When it is popped off, it is popped off from the top (LIFO - Last In, First Out). For the queue, when a coordinate is pushed into it, it is pushed from the back and popped from the front (FIFO - First In, First Out). The results are different orders of coordinates that are popped off in the function.