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Report

1. The following is the first 12 popped with 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)

1. The following is the first 12 popped with 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)

1. Queue works with the process of First in first out (FIFO) whereas stack works with the method of Last in first out (LIFO). Given that the algorithm’s last in is the column and the first in is the row, the stack will change the column first, whereas the queue will choose to change the row first. Similarly however, they go in chronological order of popping SOUTH=>WEST=>NORTH=>EAST due to the order of the if statements to move being in the same order.