2. The first 12 popped items off the stack:

1) (4,3)

2) (3,3)

3) (5,3)

4) (5,2)

5) (5,1)

6) (6,1)

7) (7,1)

8) (8,1)

9) (8,2)

10) (6,3)

11) (4,4)

12) (4,5)

4. The first 12 popped items off the queue

1) (4,3)

2) (4,4)

3) (5,3)

4) (3,3)

5) (4,5)

6) (6,3)

7) (5,2)

8) (4,6)

9) (5,5)

10) (5,1)

11) (4,7)

12) (6,5)

A queue and stack look at the elements in memory in a different order. A queue utilizes “breadth first search” while a stack utilizes “a depth first search”. In a stack, the most recently element added is the first to be looked at again and is added to the top of the array or other data structure used. In a queue, the element is added to the end of the array or data structure, and the earlier piece of data added is looked at the first, and is at the top of the queue earlier.