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Suppose q is an instance of a queue that can store Strings, and I execute the following statements starting with q empty:

```
1. q.enqueue("Sweden");
2. q.enqueue("is");
3. q.enqueue("my");
4. String w = q.dequeue();
5. String x = q.peek();
6. q.enqueue("neighbor");
7. String y = q.dequeue();
8. String z = q.dequeue();
```

What is the value of z after executing these expressions in order?

- a. "Sweden"
- b. "is"
- \*c. "my"
- d. "neighbor"
- e. None of the above
- f. "
- g. "
- h. "
- i. "
- j. "

General Feedback:

If we consider the contents of the queue after each expression (listing contents from head to tail), we have

1. ["Sweden"]
2. ["Sweden" "is"]
3. ["Sweden" "is" "my"]
4. ["is" "my"] (and w gets set to "Sweden")
5. ["is" "my"] (and x gets set to "is")
6. ["is" "my" "neighbor"]
7. ["my" "neighbor"] (and y gets set to "is")
8. [ "neighbor"] (and z gets set to "my")

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Which of the following parts of a process' memory is the largest?

- a. The code area
- b. The globals area
- \*c. The heap

d. The stack

- e.
- f. "
- g. "
- h. "
- i. "

General Feedback:

**Heap is the largest.**

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Prim's Algorithm is used to solve what problem?

- a. Finding the lowest parent of a heap
- \*b. Minimum spanning tree
- c. Shortest path in a graph from a source
- d. Sorting integers
- e.
- f. "
- g. "
- h. "
- i. "

General Feedback:

**Prim's is used for MST.**