

## Quiz #3 Answers

1. What are the operations on a stack? What about a queue? In what way are they different from one another? In what way are they the same?

**Stack: push and pop**

**Queue: enqueue and dequeue**

**Both have simple operations that add and item and remove an item. The difference between them is what item is removed. A stack is LIFO so we remove the thing that was most recently added. A queue is FIFO so we remove the thing that has been on it the longest.**

2. Describe what a linked list is. What types of operations are they good at? What types of things can you not do well with a linked list?

**Linked lists are characterized by nodes that store data and know about the neighbor(s). The advantage of linked lists is that it is very easy to add into the middle of them or delete from the middle of them. You only have to reset a few pointers. However, they are very bad for random access. You can't just jump to an item, you have to walk the list to get to one. That's not good for searching.**

Extra Credit: Tell me something specific that you learned from reading the AWT/Swing API.

**This could vary, but it had to be correct, specific, and stuff you would have learned looking at the API.**