

CSC2720 : Writing Test Cases. (To be taught by the TAs in the labs)

Arrays:

- Empty array
- Single element
- User input can be of any length
- Input mismatch for user input
- Min-max overflow for integer
- Array index out of bounds

Stack & Queues

- removing the last element
- inserting invalid objects
- deleting objects that are on the stack
- empty stack
- Attempt to pop an element from the stack. You should receive an `ArrayIndexOutOfBoundsException` exception.
- Test for memory leaks. – removed elements need to be null

Trees

- All the queue testcases
- Level order traversal for empty tree
- Delete from an empty tree
- Delete when there is only one element
- Deletion from a skew tree
- For BST, check if the tree is following all the rules after insertion, deletion

Graphs

- Empty graph
- One node with self-loop
- More than one disjoint graph