```cpp
1  /*
2      Li, Gellert
3
4      CS A250
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6
7      Lab 1: Array Insertion
8  */
9
10 #include <iostream>
11 using namespace std;
12
13 const int CAPACITY = 10;
14
15 // Declaration function insertAtIndex
16 // Your code here...
17 void insertAtIndex(int arr[], int &numberOfElements, int element, int index);
18
19 #include "Testing.hxx"
20
21 int main() {
22     testCases();
23
24     cout << endl;
25     system("Pause");
26     return 0;
27 }
28
29 // Definition function insertAtIndex
30 // Your code here...
31 void insertAtIndex(int arr[], int &numberOfElements, int element, int index) {
32     if (index > CAPACITY) {
33         cerr << "The array cannot have more than 10 element." << endl;
34     } else if (index > numberOfElements) {
35         cerr << "You can only insert contiguous elements in the array." << endl;
36     } else {
37         if (numberOfElements < CAPACITY) {
38             int temp;
39             numberOfElements++;
40             for (int i = 0; i < numberOfElements; i++) {
41                 if (i == index) {
42                     temp = arr[i];
43                     arr[i] = element;
44                 } else if (i > index) {
45                     arr[i] = temp;
46                 }
47             }
48         } else {
49             cerr << "Array is full. Cannot insert another element." << endl;
```

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50            }
51        }
52
53   }
54
```