

**WAYGROUND**  
formerly Quizizz **Worksheets****DS Lab 2**

Total questions: 10

Worksheet time: 5mins

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Name Class Date 

1. This part of code is a part of which function?

```
for (int i = mySize; i > pos; i--)  
    myArray[i] = myArray[i - 1];
```

- a) erase
- b) insert
- c) display

2. If the capacity of a static list is fixed, what happens when you try to insert into a full list?

- a) The last element is overwritten
- b) A new array is created
- c) Program throws an error or terminates
- d) Oldest elements are deleted automatically

3. Which of the following best describes a static list?

- a) A fixed-size, array-based list
- b) A linked list with dynamic allocation
- c) A circular buffer
- d) A resizable sequence of elements

4. Which operator is typically overloaded to output objects using cout?

- a) >>
- b) =
- c) []
- d) <<

5. Which of the following is true about a constructor?

- a) It destroys objects
- b) It is always private
- c) It must have the same name as the class
- d) It can return a value

```
6. void print(int n) {  
    if (n == 0) return;  
    cout << n << " ";  
    print(n - 1);  
}
```

What will be the output for print(3)

- a) 0 1 2
- b) 1 2 3
- c) 3 2 1
- d) infinite recursion

7. What ensures that recursion terminates?

- a) General Case
- b) Function Overloading
- c) Base Case
- d) Global Variable

```
8. int sum(int n) {  
    if (n == 0) return 0;  
    return n + sum(n - 1);  
}
```

What does sum(4) return?

- a) 10
- b) 4
- c) 6
- d) 24

```
9. class Base {  
    public:  
        void show() { cout << "Base"; }  
    };  
    class Derived : public Base {  
        public:  
            void show() { cout << "Derived"; }  
        };  
    int main() {  
        Derived d;  
        d.show();  
    }  
    what's the output?
```

- a) error
- b) Derived
- c) Base
- d) BaseDerived

10. Which of the following statements about destructors is **false**?

- a) A class can have multiple destructors with parameters
- b) Destructors take no arguments
- c) Destructors are automatically called when objects go out of scope
- d) A destructor has the same name as the class, prefixed with ~

**Answer Keys**

- |  |   |                                      |
|--|---|--------------------------------------|
| 1. b) insert   | 2. c) Program throws an error or terminates   | 3. a) A fixed-size, array-based list |
| 4. d) <<   | 5. c) It must have the same name as the class | 6. c) 3 2 1                          |
| 7. c) Base Case  | 8. a) 10                                      | 9. b) Derived                        |
| 10. a) A class can have multiple destructors with parameters |   |                                      |

