

1. Which of the following is a correct way to initialize the variable named `NCC1701` to be a dynamic array of `starShip` pointers with size `size`?

- A. `NCC1701 = new starShip[size];`
- B. `for (int i = 0; i < size; i++) NCC1701[i] = new starShip *;`
- C. **[Correct Answer]** **[Your Answer]** `NCC1701 = new starShip *[size];`
- D. `starShip * NCC1701[size];`
- E. None of the other answers are correct initializations for `NCC1701`.
- F. `starShip * [size] NCC1701;`

2. Consider this simple example.

```
int * p;  
int i = 37;  
*p = i;  
cout << *p << endl;
```

What is the result of executing these statements if you assume the standard `iostream` library has been included?

- A. This code does not compile.
- B. The memory address of `p` is sent to standard out.
- C. **[Correct Answer]** **[Your Answer]** This code results in undefined runtime behavior.
- D. This code has a memory leak.
- E. None of the other options describes the behavior of this code.
- F. 37 is sent to standard out.

3. Consider this simple example

```
class Pumpkin {  
public:  
    Pumpkin(double radius, int * seeds)  
    Pumpkin(const Pumpkin & other);  
    ~Pumpkin();  
    // more public member functions  
  
private:  
    double radius;  
    int *seeds;  
    // more private member variables  
};
```

Which of the following functions must also be implemented for the `Pumpkin` class for it to function correctly?

- A. `operator ()`
- B. `setRadius ()`
- C. No Parameter Constructor
- D. `operator delete`
- E. **[Correct Answer]** **[Your Answer]** `operator=`

4. Which of the following is a correct function signature for the overloaded addition operator for the `sphere` class, if we want that operator to return a `sphere` whose radius is the sum of the radii of the object and its parameter?

- A. **[Correct Answer]** **[Your Answer]** `sphere sphere::operator+(const sphere & right) const;`
- B. More than one of the three function signatures, could be used.
- C. `sphere & sphere::operator+();`
- D. `sphere sphere::operator+(const sphere & left, const sphere & right);`
- E. None of the other options is appropriate

5. Consider this simple example.

```
string * b = new string("NULL");  
string * a = b;  
cout<<*a<<endl;  
delete a;  
a = NULL;  
b = NULL;
```

What is the result of executing these statements if you assume the standard `iostream` library has been included?

- A. None of the other options describes the behavior of this code.
- B. This code has a memory leak.
- C. **[Correct Answer]** **[Your Answer]** `NULL` is sent to standard out and no memory is leaked.
- D. This code results in undefined runtime behavior.
- E. The memory address of `b` is sent to standard out.
- F. This code does not compile.