1) Write the C++ code to declare an array of integers of some constant size, MAX_SIZE. Initialize each element in the array with the number of its index. For example, the first slot in the array would get a 0, the second slot would get a 1, and so on.

2) What is the error in the following code, and what will be the result:

```cpp
char Array[10];
Array[10] = '0';
```

3) Assume that X and Y are arrays of type int. Which of the following operations on arrays are valid:

- Assignment: `X = Y;`
- Equality Test: `X == Y;`
- I/O: `cout << X;`
- Arithmetic: `X + Y;`
- Return: `return (X);`
- Parameter: `SomeFunction(X, Y);`
4) What should the **minimum** size of the array be? Explain your answer.

```c
char String1[SIZE] = "Hello World!";
```

5) Assume an input file stream, inFile (it has been declared and opened) that contains a last name and a first name in the format *Last*^Firs^Middle (this is based on the HL7 message standard used in healthcare information systems). Write the C++ code to extract each name into its own array. Then, combine the names into a single array in the form *First MiddleInitial. Last* (with spaces in between the names). Keep in mind that the input will contain the full middle name, but the output should only contain the first initial of the name, followed by a "." (period). You can assume a MAX_SIZE for all arrays of 256.