

Make sure your answers brief and to the point. Part I & II are to be completed without a compiler. Part III requires a compiler and upload to Canvas.

Part I: (*True/False, if false provide a short explanation... 20 points*)

- _____ 1. An array is a set of objects of different data types that are contiguously stored in memory.
- _____ 2. The following declares and populates an array of characters, sometimes referred to as a c-string. `char a[] = "anna rose";`
- _____ 3. To find the size of a c-string, implemented as null terminated character array, we can use the `size()` method.
- _____ 4. The string object is a built-in data type in C++.
- _____ 5. The multidimensional integer array: `int a[3][2];` consists of the following 6 elements:
`a[1][1], a[1][2],`
`a[2][1], a[2][2],`
`a[3][1], a[3][2]`
- _____ 6. The value contained in a pointer variable is a memory address.
- _____ 7. The following function prototype requires a variable to be passed by value: `void function(double &x);`
- _____ 8. Vector objects in C++ are fixed in size at compile time.
- _____ 9. A **struct** is a programmer defined compound data type that encapsulates data members and corresponding methods.
- _____ 10. The scope resolution operator (`::`) is optional when method implementations are separated from the structure design.