

Assignment 6

Student Name:

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Reading Assignment: C++ Primer, 5th edition

- Chapter 6 – Functions

True or False:

1. **0.5 pt** – In C++, it is possible to use the same name for several different functions.
2. **0.5 pt** – C++ supports what is commonly known as separate compilation, which allows a program to be split into several files with each file being compiled independently.
3. **0.5 pt** – A function parameter is always bound to its corresponding argument.
4. **0.5 pt** – Arrays can be passed by value to a function.

Short Questions:

1. **1 pt** – Explain the meaning of the expression: overloaded functions.
2. **1 pt** – Describe the behavior and purpose of an `inline` function.
3. **1 pt** – How can one create a local variable whose lifetime continues across calls to a function?
4. **1 pt** – Explain why one should never `return` a reference or pointer to a local object.

Programming Challenge:

1. Write a `main` function that takes two optional command-line integer arguments. Using pointers, write a function to swap the value of two `int` variables. The function should then print the supplied arguments in reverse order. Test the function by calling it and printing the swapped values.
2. Rewrite this program to use references instead of pointers to swap the value of two `int` variables.
3. Implement your application in C++.
4. Using CMake and GitHub, commit your code as a project in a directory labeled `Cpp` and under project name `Code6`.