

Assignment 5

Reading and Exercises

Read the online class notes Lesson 5 and Chapter 4, pages 225-234

Questions

1) A tricky question:

Let's say `int n = 7`. What is the effect of:

a) `if (n == 3)`

`cout << "Hello"`

b) `if (n = 3)`

`cout << "Hello"`

Why ? (Hint: it has to do with the assignment operation and what it returns. Look it up)

2) When you call a function, as in the area and perimeter of a past assignment, you include the values to be sent to the function (the arguments) in parentheses. The function must have been defined with parameters of an equivalent type, that will be

used to receive those values.

If the function is called using variables, as in `cout << area(length, width)` for instance, what is passed to the parameters is a copy of the values in those variables. This is called *call-by-value*. In that case, the receiving parameters in the function are initialized to the contents of the two argument variables (length and width, in our example). Based on this, given the following function:

```
void f (int i )  
{  
    i = 57;  
}
```

assuming it is called like this:

`f(value)`

where `value` is a variable of type `int`, defined as `int value = 9`; what would be the result of printing variable `value` after the call? **Explain**

C++ Program

Write a program that prints letter grades based on a score (between 0 and 10) entered from the keyboard.

The simplified scoring system will be:

9-10 A

8 B

7 B-

6 C+

5 C

4 D+

0-3 F

Write two functions as part of the same program: *if_grade* and *switch-grade*. Both will take the integer score as input and print the letter grade. The *if_grade function* will accomplish this with if-else, the *switch_grade* function will use a switch statement.