Assignment #6

CPSC 121: Computer Science I

Due: Tuesday October 30th, 2018 [Blackboard Upload Only]

Problem 1

Find the errors:

1.1

```
void getValue(int value&)
{
    cout << "Enter a value: ";
    cin >> value&;
}
```

1.2

```
void area(int length = 30, int width)
{
    return length * width;
}
```

1.3

```
double average(int value1, value2 = 10, int value3)
{
    double average;
    average = value1 + value2 + value3 / 3;
}
```

Problem 2

Write a program that determines which of a companys four divisions (Northeast, Southeast, Northwest, and Southwest) had the greatest sales for a quarter. It should include the following two

functions, which are called by main .

- double **getSales()** is passed the name of a division. It asks the user for a divisions quarterly sales figure, validates the input, then returns it. It should be called once for each division.
- void **findHighest()** is passed the four sales totals. It determines which is the largest and prints the name of the high grossing division, along with its sales figure.

Input Validation: Do not accept dollar amounts less than $0.00.

Problem 3

Write a program that calculates the average of a group of test scores, where the lowest score in the group is dropped. It should use the following functions:

- void **getScore()** should ask the user for a test score, store it in a reference parameter variable, and validate it. This function should be called by main once for each of the five scores to be entered.
- void **calcAverage()** should calculate and display the average of the four highest scores. This function should be called just once by main and should be passed the five scores.
- int **findLowest()** should find and return the lowest of the five scores passed to it. It should be called by calcAverage, which uses the function to determine which of the five scores to drop.

Input Validation: Do not accept test scores lower than 0 or higher than 100.

Problem 4

A prime number is a number that is only evenly divisible by itself and 1. For example, the number 5 is prime because it can only be evenly divided by 1 and 5. The number 6, however, is not prime because it can be divided evenly by 1, 2, 3, and 6. Write a function name isPrime, which takes an integer as an argument and returns true if the argument is a prime number, or false otherwise. Demonstrate the function in a complete program.