**Debugging exercises:**

1. If the following pseudocode were an actual program, why would it not display the output that the programmer expects?

Declare String favoriteFood

Display “what is the name of your favorite food?”

Input favoriteFood

Display “Your facorite food is”

Display “favoriteFood”

It will not display wat the programmer expected because of the last line, it was not coded properly to display the person’s input.

2. If the programmer translates the following pseudocode to an actual programming language, a syntax error is likely to occur. Can you find the error?

Declare String 1stPrize

Display “Enter the award for first prize.”

Input 1stPrize

Display “The first prize winner will receive “, 1stPrize

The syntax error in this is that you cannot name the files with numbers and declare with numbers.

3. The following code will not display the results expected by the programmer. Can you find the error?

Declare Real lowest, highest, average

Display “enter the lowest score.”

Input lowest

Display “enter the highest score.”

Input highest

Set average = low + high /2

Display “the average is “, average, “.”

The error would be in the 6th line of code. The programmer did not put lowest + highest, instead they put low + high, which would produce an error.

4. Find the error in the following pseudocode.

Display “Enter the length of the room.”

Input length

Declare Integer length

This would produce and error because the programmer declared the integer length late, you declare first then make your inputs and outputs.

5. Find the error in the following pseudocode.

Declare Integer value1, value2, value3, sum

Set sum = value1 + value2 + value3

Display “Enter the first value.”

Input value1

Display “Enter the second value.”

Input value2

Display “Enter the third value.”

Input value3

Display “The sum of numbers is “, sum

The error here is that you set sums value after all of the inputs otherwise it will produce an error.

6. Find the error in the following pseudocode.

Declare Real pi

Set 3.14159265 = pi

Display “The value of pi is “, pi

The error in this pseudocode is the second line of pseudocode. The values are backwards; it should be Set pi = 3.14159265.

7. Find the error in the following pseudocode.

Constant real GRAVITY = 9.81

Display “rates of acceleration of an object in free fall:”

Display “Earth: “, GRAVITY, “meters per second every second.”

Set GRAVITY = 1.63

Display “Moon: “, GRAVITY, “meters per second every second.”

This will display an error because the programmer set GRAVITY as a constant and then attempted to change its value.