Exercise 1

Review Exercises in .html files

basics.html: #s 1-9

- 1.) True
- 2.) False, /* */ is also another method for commenting
- 3.) True
- 4.) True
- 5.) The first snippet prompts the user with directions to "Enter the name of the file to open => " with a tab in it. The second snippet outputs "The man said: "Enough is enough!" with a new line in the end. The third snippet displays the path name of the file with a new ending line.
- 6.) counter variable is being used first, and then its initialized as integer after calling it.
- 7.) Onum: Not a valid identifier because it starts with 0.
 - <u>speedOfLight</u>: Is a valid identifier because it passes all the requirements for it to be valid. It does not begin with a digit.
 - <u>user response</u>: Is not a valid a identifier because user response contains a space in between.
 - if: Not a valid identifier because if is a reserved word for if statements.
 - E: Is a valid identifier because it passes all the requirements for it to be valid. It does not begin with a digit.
 - QUART: Is a valid identifier because it passes all the requirements for it to be valid. It does not begin with a digit.
- 8.) String type variable
- 9.) initalize integer, character, short_integer, signed_integer, and double_integer

Set integer equal to 4

Print "The size of an int in bytes is" with variable integer

Set character equal to 4

Print "The size of an char in bytes is" with variable character

Set short_integer equal to 2

```
Print "The size of an short in bytes is " with variable short_integer

Set signed_integer equal to 4

Print "The size of an float in bytes is " with variable signed_integer

Set double_integer equal to 8
```

Print "The size of an double in bytes is " with variable double integer

analysis.html: (only one Review exercise)

<u>Problem</u>: Trying to find the final grades for each student in the course.

Analysis:

Input: Quiz # 1, Quiz # 2, Quiz # 3, Quiz # 4, Test # 1, Test # 2

Output: Final Grade

Variables: Quiz Total, Test Total, Quiz Average, Test Average, Quiz Weight, Test

Weight

Formulas:

Quiz Total = Quiz # 1 + Quiz # 2 + Quiz # 3 + Quiz # 4

Quiz Average = Quiz Total / 4

Test Total = Test # 1 + Test # 2

Test Average = Test Total / 2

Quiz Weight = Quiz Average * 0.4

Test Weight = Test Average * 0.6

Final Grade = Quiz Weight + Test Weight

Design:

Get Quiz # 1

Get Quiz # 2

Get Quiz # 3

Get Quiz # 4

Get Test # 1

Get Test # 2

Calculate Quiz Total

Calculate Quiz Average

Calculate Test Total

Calculate Test Average

Calculate Quiz Weight

Calculate Test Weight

Calculate Final Grade

Display Final Grade

Test:

	Quiz 1	Quiz 2	Quiz 3	Quiz 4	Test 1	Test 2	Quiz Total	Test Total	Quiz Average	Test Average	Quiz Weight	Test Weight	Final Grade
Get Quiz	90	?	?	?	?	?	?	?	?	?	?	?	?
Get Quiz	90	92	?	?	?	?	?	?	?	?	?	?	?
Get Quiz	90	92	85	?	?	?	?	?	?	?	?	?	?
Get Quiz	90	92	85	90	?	?	?	?	?	?	?	?	?
Get Test	90	92	85	90	87	?	?	?	?	?	?	?	?
Get Test	90	92	85	90	87	95	?	?	?	?	?	?	?
Calc Quiz Total	90	92	85	90	87	95	357	?	?	?	?	?	?
Calc Test Total	90	92	85	90	87	95	357	182	?	?	?	?	?
Calc Quiz Average	90	92	85	90	87	95	357	182	89.25	?	?	?	?
Calc Test Average	90	92	85	90	87	95	357	182	89.25	91	?	?	?
Calc Quiz Weight	90	92	85	90	87	95	357	182	89.25	91	35.7	?	?
Calc Test Weight	90	92	85	90	87	95	357	182	89.25	91	35.7	54.6	?
Calc Final Grade	90	92	85	90	87	95	357	182	89.25	91	35.7	54.6	90.3
Print Grade	90	92	85	90	87	95	357	182	89.25	91	35.7	54.6	90.3

in_out.html: #s 1-3

- 1.) Yes, the underlying OS did create a file for my text.
- 2.) #include <iostream> // imports the iostream library
 #include <string> // imports the string library
 using namespace std; // adds std to every cout and cin.
 int main() { //

```
string word; // initializes variable word as string
int integer1; // initializes variable integer1 as integer
double integer2 // initializes variable integer2 as double
cout << "Enter any word: "; // prompts the user to enter a word
cin >> word; // stores user's input inside the variable word
cout << "Enter any integer: "; // prompts the user to enter any integer
cin >> integer1; // stores user's input inside integer1 variable
cout << "Enter any decimal integer: "; // prompts the user to enter an decimal int
cin >> integer2; // stores user's input inside variable integer2
cout << "The values you entered are: " << word << ", " << integer1 << "
and " <<i integer2 << endl; // displays the output with values from variables including
word, integer1, and integer2.

return 0 // exits the program
```

When 5o1 is entered for the input, the program immediately stops compiling and displays 5 and disregards the o1 value.

3.) Tabular data

}

```
Print "ID \t" + "First Name \t" + "Last Name \t" + "Balance"

Print "1 \t" + "Mary \t" + "Worth \t" + "100.00"

Print "2 \t" + "John \t" + "Kildare \t" + "15.10"

Print "3 \t" + "Harvey \t" + "Jones \t" + "65.27"

Print "4 \t" + "Wilbur \t" + "Murphy \t" + "1145.43"

Print "5 \t" + "Sandra \t" + "Dee \t" + "0.00"

Print "6 \t" + "Amy \t" + "Santucci \t" + "231.55"

Print "7 \t" + "Melissa \t" + "Cox \t" + "2.01"

Print "8 \t" + "Morgan \t" + "Freeman \t" + "1789.03"

Print "9 \t" + "Jack \t" + "Nicholson \t" + "123.67"
```

Print "10 \t" + "John \t" + "Brown \t" + "426.87"