**COSC175 Variables Lab – Introduction to variables**

**Type in Word. Work with a partner and submit ONE COPY per pair. Include the following at the top of your submission:**

**Partner 1: Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**role (driver or navigator) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Partner 2: Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**role (driver or navigator)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Please note if one partner did not work on all problems.**

1. Read Ch. 3. Using the C++ editor, type the following program:

#include <iostream>

#include <string>

using namespace std;

int main ()

{

 //declarations

string name;

 //input

cout <<"Enter your first name" << endl;

 cin >> name;

 //output

 cout << "Hello " << name << "! " << endl;

 return 0;

}

1. Compile and run. What does the cin statement do?
2. What does the cout statement do?
3. Is **name** a variable or a constant?
4. What type is **name**?
5. Add the following line to the declaration statements:

int age;

Add the following lines to your program:

cout << “Enter your age” << endl;

cin >> age;

Compile and Run.

What type is age? Describe this type.

1. Add a line to print the age to the screen. Compile and Run.
2. Add the following line to the declaration statements:

float bodyTemp;

 Add the lines to input and out your body temperature. Compile and run.

 What type is bodyTemp? Describe this type.

1. Add the appropriate declaration, input and output statement for each of the following:

Height (hint, use two variables)

Weight

Sex (hint, use the char type)

Last name

1. Turn in:
	1. The final program
	2. The final output

Answers to these questions only:

* 1. What is the integer data type and how is it declared in C++?
	2. Give an example of where the integer type might be used.
	3. What is the real data type and how is it declared in C++?
	4. Give an example of where the real type might be used.
	5. What is the string data type and how is a string declared in C++?
	6. Give an example of where the string type might be used.
	7. What is the boolean type and how is an boolean declared in C++?
	8. Give an example of where the boolean type might be used.