CptS 121 – Program Design and Development

Your Name: Duy Pham TA’s Name: Aayush Bajoria

ID#: 011742984 Section #: 14

Quiz 2

1. (3 pts) Identify the three hard rules for user-defined identifiers. If a programmer breaks these rules, then the compiler will report a syntax error.

+The three hard rules:

* Must consist only of letters, numbers, and underscores.
* Must not begin with digits
* Must not be keywords or reserved words.

1. (2 pts) What is a variable declaration? Explain.

* Variable declarations reserves memory block for a value. It also associates a name (user-defined identifier) with a memory cell.
* Explain:

In the program, every variable we use m must be declared. Declaring a variable tells the compiler about data type and the name of the variable. And variable declaration is to assign properties and identifiers to a variable.

1. (2 pts) Why do we include <stdio.h> in many of our C programs? Explain.

* <stdio.h> defines the C input/output library, which is why it is necessary to use several functions that perform input and output like printf ( ) and scanf ( ).
* Explain: In most C programs, we need to get inputs through the keyboard and output the result to the screen. For example, the scanf function reads an input value from the keyboard, and the printf function can be used to output results to the user's display. Therefore, we need to include <stdio.h> that defines the C input/output library.

1. (5 pts) Provide each result for the following three C language expressions. Numbers listed without a decimal point are considered integer values and ones with a decimal point are considered double precision floating-point values.
2. 7.0 / 3 = 2.333333
3. 652 / 650 = 1
4. 21.0 \* -2.0 = - 42.000000
5. 8 % 3 = 2
6. -19 - 3 / 7 % 2 + 1 = - 18
7. (3 pts) Which C data types should be used to best represent the following? For each blank, you may list int, double, or char only. These types may be used multiple times.

a. The population of the state of Washington? \_\_\_\_\_\_int\_\_\_\_\_\_

b. Each letter in “WSU”? \_\_\_\_\_\_\_\_\_\_char\_\_\_\_\_\_\_\_\_\_\_

c. Minimum wage in in the state of Idaho? \_\_\_\_\_\_\_\_double\_\_\_\_\_\_\_\_\_\_