Answer the discussion questions in writing for chapter 2.

1. What is a local variable?

a. Variables that exist only in a method or another small section of code.

2. What is a statement?

a. A statement is a command that performs and action such as calculation a value and storing the result or displaying a message to a user.

b. You can identify a statement by the semicolon ;

c. A statement is different than an expression. An expression is a piece of code that evaluates to a value.

3. What is an identifier?

a. Identifiers are the names that you use to identify the elements in your programs, such as namespaces, classes, methods, and variables.

b. Rules for identifiers in C#: you cannot use spacial characters. You can use alphabetical letters.

4. What is a variable?

a. A variable is a storage location that holds a value. A variable is a box in a computer’s memory that holds temporary information.

b. Professors definition: \*\* A variable is a name location in memory that contains a value with a type. \*\*

5. What is a method?

a. A method is a named sequence of statements. A method should be a meaningful identifier.

6. Are primitive types and value types the same thing? This is not in the book. EX: 2+2 = 4

a. Primitive data types include the numeric types of C#, common types for holding strings, characters, and Boolean values.

7. How are arithmetic operators and variable types related?

a. A variable is a name given to a storage area that is used to store values of various data types. This is important because each variable needs to have a specific type which will determine the size and layout of the variables memory. Depending on variable type certain arithmetic operators can be used in conjunction

8. How do you turn an integer into a string?

a. You would use a ToString method

b. Int, long, and float are aliases for the strictures System.Int32

9. How do you turn a string into an integer?

a. This requires that the string contain a valid set of digits and not arbitrary sequences of characters. You will need to write a piece of code that will call a method to caculate a value and writes the result to another box.

10. What is the difference between precedence and associativity? Give an example where this makes a difference

a. Precedence is the priority and organizes operators vertically

b. Associativity defines whether the operator evaluates from left to right or from right to left.

11. What is the definite assignment rule?

a. You must assign a value to a variable before you can use it otherwise the program will not compile

12. How are the prefix and postfix increment and decrement operators evaluated differently?

a. Prefix means that you are placing the operator symbol before the variable

b. Postfix means that you are placing the operator symbol after the variable

13. What is string interpolation?

a. String interpolation is a feature that renderes many uses of the + operator obsolete for concatenating strings

b. It is more efficient than using the + operator

14. What does the var keyword do?

a. It causes the compiler to deduce the type of the variables from the types of the expressions used to initialize them