Homework 4

Chapter 6

Multiple Choice

1. In general terms, a program that is broken into smaller units of code, such as methods, is known as a(n) <u>modularized program</u>
   1. object-oriented program

   2. modularized program

   3. procedural program
   4. method-driven program

2. Writing the code to perform a task once and then reusing it each time you need to perform the task is a benefit of using methods called <u>code reuse</u> .

   a. code reuse

   b. the single-use philosophy
   c. method recycling
   d. code reprocessing

3. When you call a(n) <u>void method</u>, it simply executes the statements it contains and then terminates.
   a. intrinsic method
   b. empty method
   c. logical method

   d. void method

4. The <u>method header</u>, which appears at the beginning of a method definition, lists several important things about the method, including the

method's name.
a. method title
b. method description

c. method header

d. method declaration

5. The ___method body___ is a collection of statements enclosed inside a set
of curly braces that are performed when the method is executed.

a. method body

b. method designation
c. method code
d. method classification

6. The ___return point___ is the memory address that is saved by the system
when a method is called and is the location to which the system should return
after a method ends.
a. calling address
b. method address

c. return point

d. come back position

7. Programmers commonly use a technique known as ___top-down design___
_ to break down an algorithm into methods.
a. prototyping
b. method modeling
c. algorithm division

d. top–down design

8. Pieces of data that are sent into a method are known as ___arguments___
_.

a. arguments

b. references
c. method variables
d. data entries

9. A(n) _____parameter variable_____ is a special variable that receives an argument when a method is called.
a. reference variable
b. argument variable

c. parameter variable

d. method variable

10. A _____named argument_____ specifies which parameter an argument should be passed into.

a. named argument

b. special argument
c. constant argument
d. literal argument

11. When a(n) _____default argument_____ is provided for a parameter, it becomes possible to call the method without explicitly passing an argument into the parameter.
a. local argument
b. empty argument

c. default argument

d. expressional argument

12. When an argument is _____passed by value_____, only a copy of the argument's value is passed into the parameter variable.
a. a named constant
b. passed by association

c. passed by reference

d. passed by value

13. When you want a method to be able to change the value of a variable that is passed to it as an argument, the variable must be __passed by reference____ .

    a. passed by reference

    b. a local variable
    c. passed by value
    d. a named constant

14. A ___reference parameter_____ a special type of parameter variable that is useful for establishing two-way communication between methods.
    a. communication variable

    b. reference parameter

    c. method parameter
    d. global variable

15. A(n) __output parameter____ can have an uninitialized value passed into it, but it must be set to some value before the method it belongs to finishes executing.
    a. input parameter
    b. reference parameter

    c. output parameter

    d. default parameter

16. A method's __return type____ is the type of value that the method returns.
    a. data type

    b. return type

c. value type
d. method type

True/False

1. Dividing a large problem into several smaller problems that are easily solved is sometimes called divide and conquer. True

2. In a Pascal case name, the first character is always uppercase. True

3. If a method belongs to a class, then you must write a method's definition inside the class. True

4. The contents of variables and the values of expressions cannot be passed as arguments. False

5. You do not have to write the data type for each parameter variable that is declared in a parameter list if they are all of the same data type. False

6. An output parameter works like a by value parameter. False

7. A value-returning method must contain a return statement. True

8. A Boolean method returns either yes or no. False

Chapter 7

Multiple Choice

1. The memory that is allocated for a __ value type_____ variable is the actual location that will hold any value that is assigned to that variable.
   a. reference type
   b. general type

   c. value type

   d. framework type

2. A variable that is used to reference an object is commonly called a(n) __reference variable_____ .

   a. reference variable

   b. resource variable
   c. object variable
   d. component variable

3. When you want to work with an object, you use a variable that holds a special value known as a(n) _____reference_____ to link the variable to the object.
   a. union

   b. reference

   c. object linker
   d. data coupling

4. The _new operator_____ creates an object in memory and returns a reference to that object.
   a. = operator
   b. object allocator
   c. reference variable

   d. new operator

5. A(n) __array_____ is an object that can hold a group of values that are all of the same data type.

   a. array

   b. collection
   c. container
   d. set

6. The __size declarator_____ indicates the number of values that the array should be able to hold.

a. allocation limit

b. size declarator

c. data type
d. compiler

7. The storage locations in an array are known as __elements__.

a. elements

b. sectors
c. pages
d. blocks

8. Each element in an array is assigned a unique number known as a(n) __subscript____.
a. element identifier

b. subscript

c. index
d. sequencer

9. When you create an array, you can optionally initialize it with a group of values called a(n) __initialization list.
a. default value group

b. initialization list

c. defined set
d. value list

10. In C#, all arrays have a __Length property_____ that is set to the number of elements in the array.
a. Limit property
b. Size property

c. Length property

d. Maximum property

11. A(n) ___off-by-one error_____ occurs when a loop iterates one time too many or one time too few.
    a. general error
    b. logic error
    c. loop count error

    d. off-by-one error

12. C# provides a special loop that, in many circumstances, simplifies array processing. It is known as the __foreach loop____ .
    a. for loop

    b. foreach loop

    c. while loop
    d. do-while loop

13. The foreach loop is designed to work with a temporary, read-only variable that is known as the _ element variable_.

    a. element variable

    b. loop variable
    c. index variable
    d. iteration variable

14. __Garbage collection_____ is a process that periodically runs, removing all unreferenced objects from memory.
    a. Systematic reallocation
    b. Memory cleanup

    c. Garbage collection

    d. Object maintenance

15. Various techniques known as __search algorithms_____ have been developed to locate a specific item in a larger collection of data, such as an array.
    a. seek functions
    b. request methods
    c. traversal procedures

    d. search algorithms

16. The ___sequential search algorithm____ uses a loop to step through an array, starting with the first element, searching for an item.

    a. sequential search algorithm

    b. top–down method
    c. ascending search algorithm
    d. basic search function

17. A(n) ___reference copy____ is a type of assignment operation that copies a reference to an array and not the contents of the array.
    a. object copy

    b. reference copy

    c. double reference
    d. parallel copy

18. The ___binary search_____ is a clever algorithm that is much more efficient than the sequential search.
    a. linear search
    b. bubble sort

    c. binary search

    d. selection sort

19. A __jagged array_____ is similar to a two-dimensional array, but the rows can have different numbers of columns.

a. one-dimensional array

b. columnar array

c. jagged array

d. split row array

20. .NET provides a class named __ List____, which can be used for storing and retrieving items.
    a. Matrix
    b. Database
    c. Containter

    d. List

21. The _ImageList control____ is a container that can hold multiple images.

    a. ImageList control

    b. GroupBox control
    c. PictureBox control
    d. ComboBox control

True/False

1. When you are working with a value type, you are using a variable that holds a piece of data. True

Chapter 8

Multiple Choice

1. In C#, __character literals____ are enclosed in single quotation marks.
   a. strings

b. enumerators

c. tokens

d. character literals

2. The char data type provides the __ToLower and ToUpper methods____ for converting the case of a character.
   a. Lowercase and Uppercase methods

   b. ToLower and ToUpper methods

   c. IsDigit and IsLetter methods
   d. IsWhiteSpace and IsPunctuation methods

3. A string within a string is called a(n) __substring__.
   a. character
   b. inner string

   c. substring

   d. thread

4. The __Contains, StartsWith, and EndsWith methods_____ of a string object allow you to search for substrings.
   a. TrimStart and TrimEnd methods
   b. IndexOf and LastIndexOf methods
   c. IsWhiteSpace and IsPunctuation methods

   d. Contains, StartsWith, and EndsWith methods

5. When you want to know the position of the substring, you can use one of the _IndexOf or LastIndexOf methods___ of a string object.
   a. TrimStart or TrimEnd methods

   b. IndexOf or LastIndexOf methods

   c. ToLower or ToUpper methods
   d. StartsWith or EndsWith methods

6. The __Substring method_____ of a string object can be used to retrieve a specific set of characters from a string.

    a. Substring method

    b. IndexOf method
    c. TrimStart and TrimEnd methods
    d. StartsWith and EndsWith methods

7. __Leading spaces____ are spaces that appear at the beginning of a string.

    a. Leading spaces

    b. Primary spaces
    c. Starting spaces
    d. Empty spaces

8. __Trailing spaces_____ are spaces that appear at the end of a string.
    a. Blank spaces
    b. Secondary spaces
    c. Ending spaces

    d. Trailing spaces

9. A series of words or other items of data contained in a string and separated by spaces or other characters are known as __tokens____.
    a. substrings
    b. elements
    c. characters

    d. tokens

10. The character that separates tokens is known as __delimiter__.
    a. partition
    b. literal

    c. delimiter

d. symbol

11. The process of breaking a string into tokens is known as ___tokenizing_____ .
   a. extracting

   b. tokenizing

   c. delimiting
   d. parsing

12. The _comma separated value, or C_____ file format is commonly used to export spreadsheet data to a text file.
   a. spreadsheet data volume, or SDV

   b. comma separated value, or C

   c. extensible markup language, or XML
   d. portable document format, or PDF533

True/False

1. You cannot store a string in a variable of the char data type.
True
2. C# allows you to access the individual characters in a string using subscript notation.
True
3. When you call a string object's Split method, the method divides the string into two substrings and returns them as an array of strings.
False