Analyzing: Defining the Problem; Choose the Interface: **Design your form** using objects; **Code**: Translate the algorithm into a programming language; **Complete Documentation**: Write & keep updated the materials that describe the program; A **decision programming statement** structure means to: if the answer to a question is "yes" then one group of instruction is executed. If the answer is "no" then another is executed.; **Problem Solving the Term Design**: Plan the solution to the problem using a tool like flowcharts; **Looping**: Series of instructions executed repeatedly.; **Test and Debug**: Locate and remove errors in the program;

When the user types into a textbox, and the program reads what the user types in, that is output: False

Every **sub procedure** must end with: End Sub; **Event** of Object: Action the user does to the object; **Method** of an Object: . A piece of code provided to you that expresses the "verb" of the object; **Property of an Object**: Characteristic of the object, also known as look and feel; **Button** uses prefix btn; **Properties** can be set in both design time and code for run time.; **Hello World** is txtWrd.Text = "Hello World"; **Syntax to set a property** is controlName.property= setting; **Button** is a control/object

After writing your code, you should save your project by selecting *Save Form1.vb As…: False*

 x = "Hello World"; lstBox.Items.Clear(); Dim Y as Integer = 1

Dim X as Integer x = x + 1 x = x + 1 lstOut.Items.Add(x) Displays the number 2

Dim X as double = 4.78 lstOut.Items.Add(Math.Round(X,1)) Displays the number 4.8

^Has the highest level of precedence;

Dim x As Double = 3,y As Double = 1

Dim z As Double z = x + (y * x) x = y z = x + z lstBox.Items.Add(x + y + z)Displays the number 9

Numeric variables can be initialized to zero or any other number, but once they are initialized, they cannot be changed. False

The value of Int(8.78) is 9. False

When declaring a variable that will refer to a submarine, a good name for the variable is sub. False

str2 = "WHEN ALL ELSE FAILS, READ THE DIRECTIONS" str1 = str2.Substring(5, 3)

If strVar.Length is 5, then the value of strVar.Substring(4, 1) is the last character of the value of strVar.: True

Dim alphabet, soup As String
alphabet = "abcdefghijklmnopqrstuvwxyz"
soup = alphabet.ToUpper
txtBox.Text = alphabet.Substring(0, 5) & soup.Substring(0, 5)
Displays: abcdeABCDE

What will be the output of the following statement?
txtBox.Text = CStr(Math.Round(17 / 5)) **Displays 3**

Dim strVar As String, numVar As Integer strVar = "Now is the time for all good men" numVar = strVar.IndexOf("the time for")
8

Which of the following expressions has as its value the value of strVar with its leading and trailing spaces removed? strVar.Trim

Textbox control: txtBox.Text = "Hello World"; Which of the following statements will **NOT display the number 5** in the text box?txtBox.Text = 5; Which statement can be used to clear the contents of a text box? **txtBox.Text = ""**; Which statement will display the words Hello World in a text box? txtBox.Text = "Hello" & " World"

The following lines are valid. (T/F) Dim h As String = "Hello" txtBox.Text = CStr(h.IndexOf("h")): True
If TAX_RATE is a named constant of type Double, which of the following statements is valid?: dblVar = TAX_RATE + 1

The value returned by INPUTBOX is String

Option Explicit requires you to declare every variable before its use. True

**What will be the output of the following statement? txtBox.Text = (0.567).ToString("P1") 56.7%**

The value of (12345).ToString("C") is $12345: False

What will be the output of the following statement? txtBox.Text = (1234.56789).ToString("N3"): 1,234.568

What is the proper syntax when using a message dialog box? MessageBox.Show("Hi there", "Hi")

```
firstDay = #1/1/2014#
```

```
strName = InputBox("What is your first name?", "First Name")
```
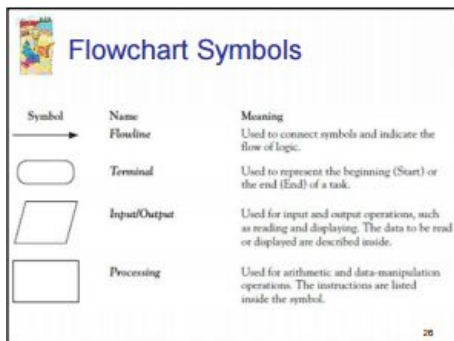


```
Function FunctionName [(ParameterList)] As ReturnType
```

```
        ' The following statement immediately transfers control back
        ' to the calling code and returns the value of Expression.
        Return Expression
End Function
```

```
Function hypotenuse(ByVal side1 As Single, ByVal side2 As Single) As Single
        Return Math.Sqrt((side1 ^ 2) + (side2 ^ 2))
End Function
```

```
Dim testLength, testHypotenuse As Single
testHypotenuse = hypotenuse(testLength, 10.7)
```

```
Sub tellOperator(ByVal task As String)
        Dim stamp As Date
        stamp = TimeOfDay()
        MsgBox("Starting " & task & " at " & CStr(stamp))
End Sub
```

```
Sub Calculate(ByVal rate As Double, ByRef debt As Double)
```

```
Private Sub Check1_Click()
        If Check1.Value = 1 Then
        Check1.Caption = "Checked"
        Else
        Check1.Caption = "Unchecked"
```



```
        End If
```

ASCII printable characters (character code 32-127) Codes 32-127 are common for all the different variations of the ASCII table

Boolean denoting a system of algebraic notation used to represent logical propositions, especially in computing and electronics.

```
for item in my_list:
```
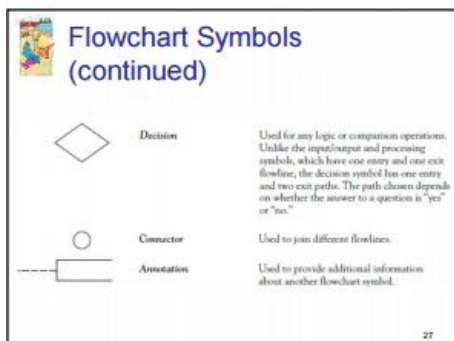
```
f.write(str(item) + "\n")
```

1. Array: Systematic arrangements of objects in programming, indiced usually by integers
2. Variable: Something declared in programming that is likely to change
3. Logical Operators: A programming symbol that denotes logical notation
4. Input: What is operated by the processing system
5. Output: The data produced, processed or delivered using a computer based system
6. Integers: All whole numbers that are greater or less than zero
7. Data Sequencing: The sorting of data displayed on a computer
8. Data Processing: A series of operations made on data in order to classify it using a computer or programming operation
9. Information Technology: The study of a computer or telecommunication system being used to retrieve, process, or classify data
10. String: Finite sequence of numbers classified in the program itself
11. Double: A type of variable that means it contains twice as many digits in binary
12. Encryption: Process of encoding messages so they can be understood only by the receiving party; usually done in cryptography or IT
13. Server: A computer program or system that manage access to a centralized network, service or resource to rely upon
14. GUI: Graphical user interface; strictly used as a technical acronym
15. Visual Basic: A programming environment by microsoft based on a GUI and the basic programming language
16. Object Oriented Programming: Programming based around objects or what will contain the data being processed
17. Loop: A series of structured events put together through programming
18. Nested Loop: A nested loop is a loop within a loop mainly for repeating inner and outer loops to make the program run more efficiently
19. Code: Programmed instructions for a computer to perform a specific action or something to be visualized in a specific way
20. Debug: A way of identifying and removing errors from your code
21. Compile: The code being created as a program or being able to run efficiently
22. Infinite Loop: Usually an error when the loop doesn't have an end to the event it is trying to perform, or doesn't know when to stop the program