

1. Let's review the terminology of procedures and functions by completing the following fill-in-the-blank questions:

- a) A(n) \_\_\_\_\_ is a named block of code that performs a specific task and does not return a value.
- b) A(n) \_\_\_\_\_ is a named block of code that executes and returns a value.
- c) You return a value from a function with the \_\_\_\_\_ statement.
- d) Values passed to a procedure or function are called \_\_\_\_\_.
- e) A(n) \_\_\_\_\_ is a special variable that receives an argument passed to a procedure or function.
- f) When an argument is passed by \_\_\_\_\_ a copy of the argument is assigned to the parameter variable.
- g) When an argument is passed by \_\_\_\_\_ the procedure has access to the original argument.

2. An application contains the following procedure:

```
Sub Display(ByVal intArg1 As Integer, ByRef strArg2 As String, ByRef sngArg3 As Single)
    MessageBox.Show("Here are the values: " & intArg1.ToString() & " " & strArg2 & _
        " " & sngArg3.ToString())
    intArg1 = intArg1 + 1
    strArg2 = strArg2 & " Fienup"
    sngArg3 = sngArg3 + 1.5
End Sub
```

a) Write a statement that calls the procedure and passes it the following variables:

```
Dim strName As String = "Mark"
Dim intAge As Integer = 13
Dim sngGPA As Single = 2.09
```

b) After returning from the procedure call from part (a), what would be the value of each of the following variables:

strName:

intAge:

sngGPA:

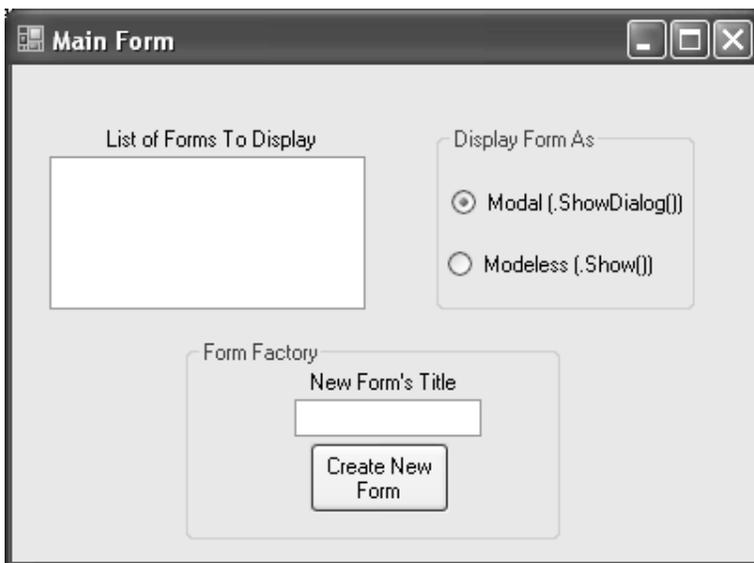
3. The following statement calls a function named Half that returns a Decimal, which is half of the argument.

```
decResult = Half(decValue)
```

Write the function Half.

4. If you download a recipe for a cake, how many cakes do you have?

5. The following NewForms application allows the user to use the Form class (the recipe) to create new Form objects (the cakes) dynamically. Actually the frmDisplay class is used to create frmDisplay objects.



A frmDisplay object:



My first attempt tried to store the frmDisplay objects into the ListBox lstForms.Items collection.

**The following code is incorrect!!!**

```
Private Sub Button1_Click(ByVal sender As System.Object, _
    ByVal e As System.EventArgs) Handles btnCreateNewForm.Click
    If txtNewFormTitle.Text <> "" Then
        Dim myForm As New frmDisplay

        myForm.Text = txtNewFormTitle.Text
        lstForms.Items.Add(myForm)
        MessageBox.Show(myForm.Text.ToString()) REM for debugging

        txtNewFormTitle.Text = ""
    End If
End Sub
```

After a demonstration, why do you think that the forms do not show up in the ListBox?