**Computer Programming – Final Exam Review Code**

**ReviewAge**

Public Class Form1

Dim n As String 'name

Dim a As Integer 'age

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

 n = TextBox1.Text

a = TextBox2.Text

Label1.Text = n & " is " & a & " years old."

If a < 18 Then

Label2.Text = "He/she is a minor"

End If

If a >= 18 And a <= 65 Then

Label2.Text = "He/she is an adult"

End If

If a > 65 Then

Label2.Text = "He/she is a senior citizen."

End If

End Sub

End Class

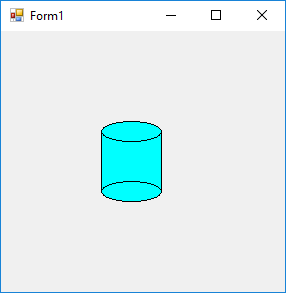
ReviewDrawing

Public Class Form1

Private Sub Form1\_Paint(sender As Object, e As PaintEventArgs) Handles Me.Paint

Dim g As System.Drawing.Graphics

g = Me.CreateGraphics

 Dim p As New Pen(Color.Black, 2)

Dim blueBrush As New SolidBrush(Color.Cyan)

g.FillRectangle(Brushes.Cyan, 100, 100, 60, 60)

g.DrawRectangle(Pens.Black, 100, 100, 60, 60)

g.FillEllipse(Brushes.Cyan, 100, 90, 60, 20)

g.DrawEllipse(Pens.Black, 100, 90, 60, 20)

g.FillEllipse(Brushes.Cyan, 100, 150, 60, 20)

g.DrawEllipse(Pens.Black, 100, 150, 60, 20)

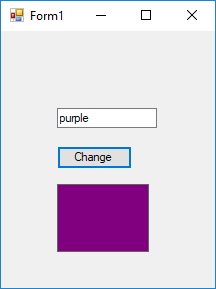
End Sub

End Class

ReviewRainbow

Public Class Form1

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

 If TextBox1.Text = "purple" Then

Label1.BackColor = Color.Purple

End If

If TextBox1.Text = "orange" Then

Label1.BackColor = Color.Orange

End If

End Sub

End Class

ReviewScreenSaver

Public Class Form1

Dim hdir As String = "right"

Dim vdir As String = "up"

Private Sub Timer1\_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick

If hdir = "right" Then

box.Location = New Point(box.Location.X + 5, box.Location.Y)

End If

If hdir = "left" Then

box.Location = New Point(box.Location.X - 5, box.Location.Y)

End If

If vdir = "up" Then

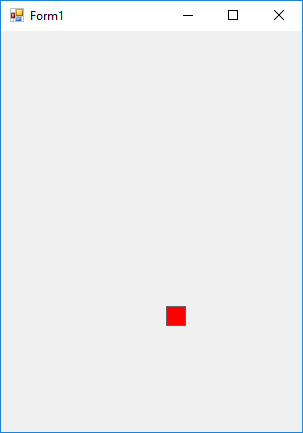
box.Location = New Point(box.Location.X, box.Location.Y - 5)

End If

If vdir = "down" Then

box.Location = New Point(box.Location.X, box.Location.Y + 5)

End If



'check top

If box.Location.Y = 0 Then

vdir = "down"

End If

'check left

If box.Location.X = 0 Then

hdir = "right"

End If

'check right side

If box.Location.X = 280 Then

hdir = "left"

End If

'check bottom

If box.Location.Y = 380 Then

vdir = "up"

End If

End Sub

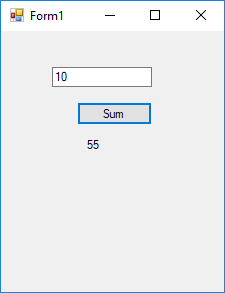
End Class

**ReviewSumItUp**

Public Class Form1

Dim num, sum, x As Integer

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

 sum = 0

num = TextBox1.Text

If num <= 0 Then

MsgBox("Enter a positive number")

Else

For Me.x = 1 To num

sum = sum + x

Next

label1.text = sum

End If

End Sub

End Class

ReviewAddition

Public Class Form1

Dim num1, num2, answer As Integer

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

makeQuestion()

End Sub

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

answer = TextBox1.Text

If answer = num1 + num2 Then

MsgBox("correct")

Else

MsgBox("Wrong. The right answer is " & (num1 + num2))

End If

makeQuestion()

End Sub

Public Sub makeQuestion()

Randomize()

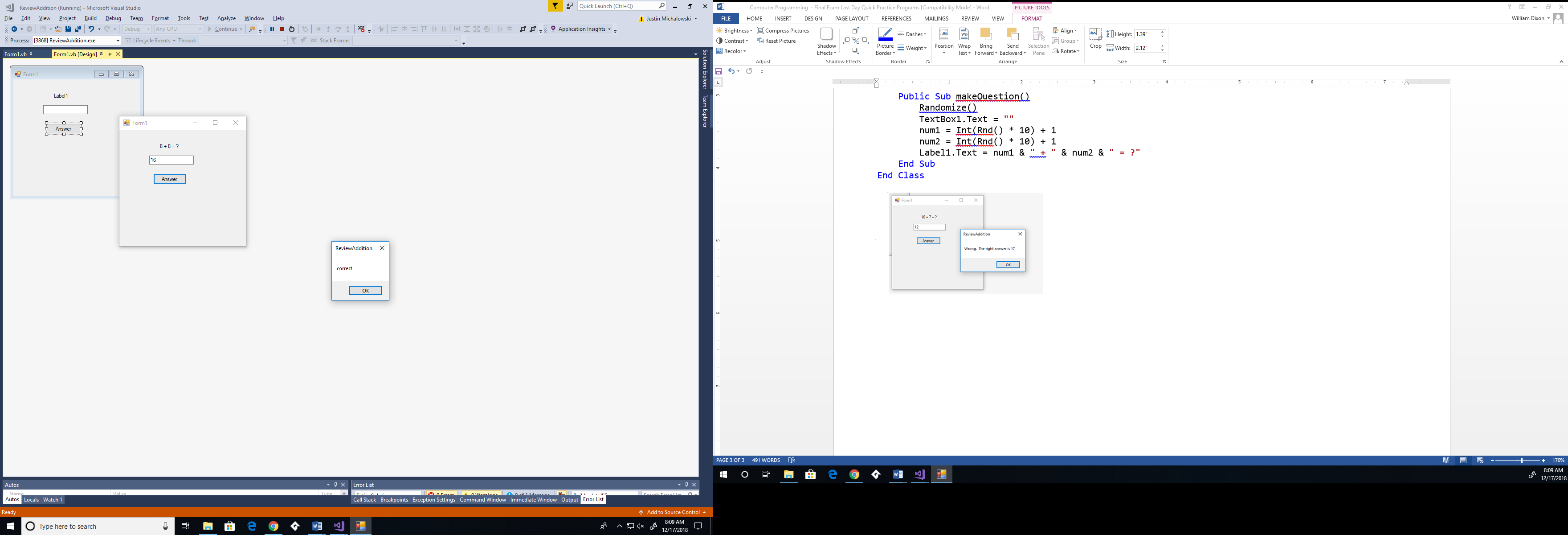
TextBox1.Text = ""

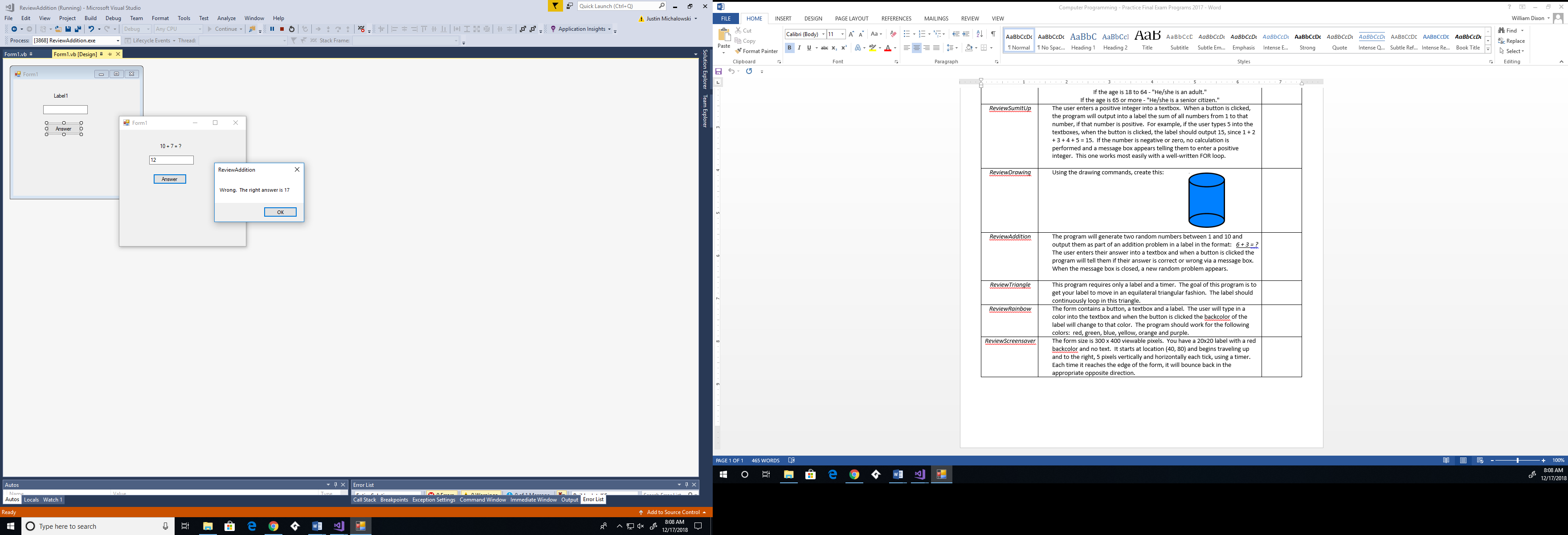
num1 = Int(Rnd() \* 10) + 1

num2 = Int(Rnd() \* 10) + 1

Label1.Text = num1 & " + " & num2 & " = ?"

End Sub

End Class



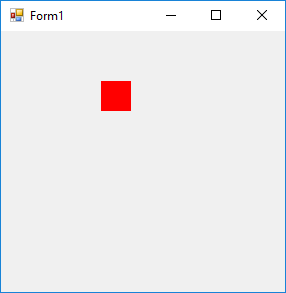
**ReviewTriangle**

Public Class Form1

Dim hdir As String = "right"

Dim vdir As String = "down"

Private Sub Timer1\_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick

 If hdir = "right" Then

box.Location = New Point(box.Location.X + 5, box.Location.Y)

End If

If hdir = "left" Then

box.Location = New Point(box.Location.X - 5, box.Location.Y)

End If

If vdir = "up" Then

box.Location = New Point(box.Location.X, box.Location.Y - 5)

End If

If vdir = "down" Then

box.Location = New Point(box.Location.X, box.Location.Y + 5)

End If

'starts at 100, 50 (down and right)

'turn left at 150, 100

'50, 100 - turn up and right

If box.Location.X = 150 And box.Location.Y = 100 Then

hdir = "left"

vdir = "nothing"

End If

If box.Location.X = 50 And box.Location.Y = 100 Then

hdir = "right"

vdir = "up"

End If

If box.Location.X = 100 And box.Location.Y = 50 Then

hdir = "right"

vdir = "down"

End If

End Sub

End Class

**ReviewCat**

Public Class Form1

Dim b As Button

Dim l1, l2, l3, l4, l5, l6, l7, l8, l9 As Label

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

 b = New Button

b.Size = New Size(75, 40)

b.Location = New Point(115, 200)

b.Text = "Show Cat"

Controls.Add(b)

AddHandler b.Click, AddressOf showCat

End Sub

Public Sub showCat(ByVal sender As Object, ByVal e As EventArgs)

'use L1, L2, L3 for the C

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(90, 30)

l1.Location = New Point(30, 30)

Controls.Add(l1)

l2 = New Label

l2.BackColor = Color.Red

l2.Size = New Size(30, 60)

l2.Location = New Point(30, 60)

Controls.Add(l2)

l3 = New Label

l3.BackColor = Color.Red

l3.Size = New Size(90, 30)

l3.Location = New Point(30, 120)

Controls.Add(l3)

'A

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(90, 30)

l1.Location = New Point(150, 30)

Controls.Add(l1)

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(30, 120)

l1.Location = New Point(150, 30)

Controls.Add(l1)

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(30, 120)

l1.Location = New Point(210, 30)

Controls.Add(l1)

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(30, 30)

l1.Location = New Point(180, 90)

Controls.Add(l1)

'T

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(90, 30)

l1.Location = New Point(270, 30)

Controls.Add(l1)

l1 = New Label

l1.BackColor = Color.Red

l1.Size = New Size(30, 90)

l1.Location = New Point(300, 60)

Controls.Add(l1)

End Sub

End Class