

实验 1.2

一. 运行结果

1. 正确输入

The screenshot shows a Windows application window titled "鸡兔同笼". It contains four input fields arranged in a 2x2 grid. The first row is labeled "输入头数" (Input number of heads), "输入脚数" (Input number of feet), "求得鸡数" (Number of chickens found), and "兔数" (Number of rabbits found). The second row shows the values entered: "5" in the first field, "12" in the second field, "4" in the third field, and "1" in the fourth field. The "求得鸡数" and "兔数" fields are highlighted with a blue border, indicating they are the results of the calculation.

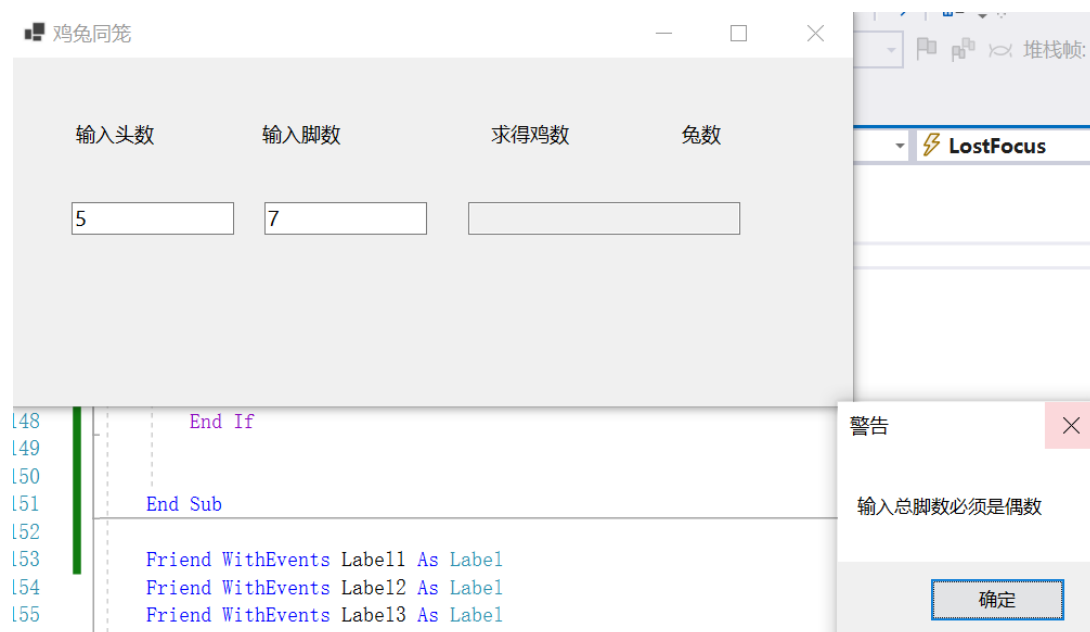
2. 错误输入

情况一：输入头数为负数

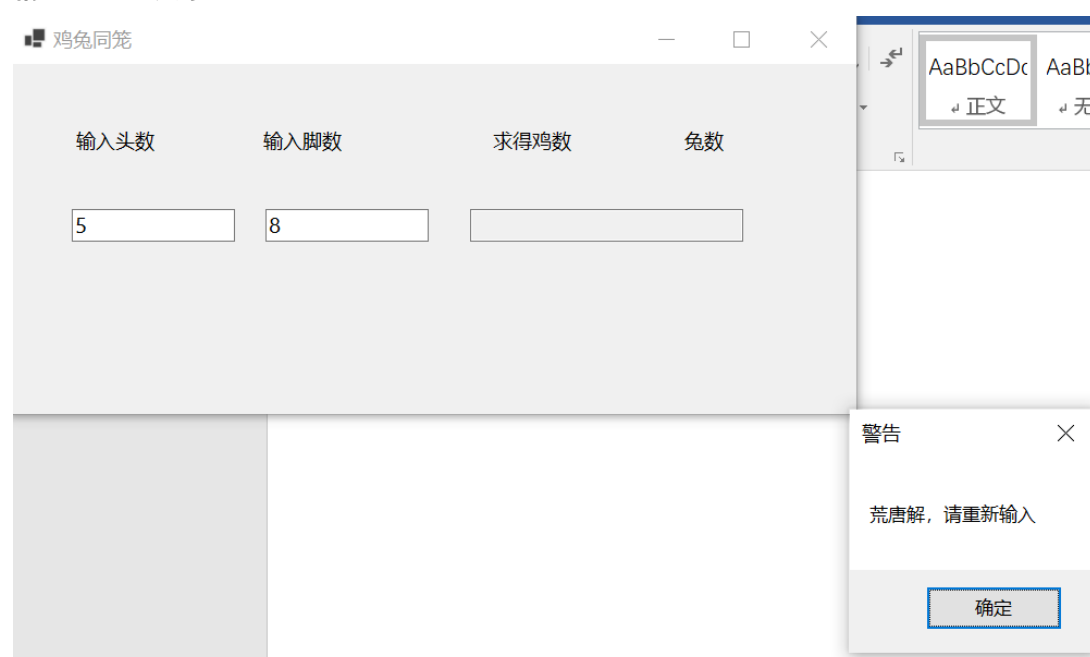
The screenshot shows the "鸡兔同笼" application window with the input fields containing "-1" for heads and "4" for feet. The "求得鸡数" and "兔数" fields are empty. A "警告" (Warning) dialog box is displayed in the foreground, with the message "输入只数为负数" (Input number of animals is negative) and a "确定" (OK) button. In the background, a code editor window is visible, showing the following code:

```
148 End If
149
150
151 End Sub
152
153 Friend WithEvents Label1 As Label
154 Friend WithEvents Label2 As Label
155 Friend WithEvents Label3 As Label
```

情况二：输入脚数为奇数



情况三：无法求解



二. 代码说明

1. 设计鸡兔同笼求解函数

```
Public Function Solv(head As Integer, foot As Integer) As Integer
    Dim Rabbit As Integer
    Rabbit = (foot - head * 2) / 2
    Solv = Rabbit
End Function
```

```
Private Sub TextBox2_LostFocus(sender As Object, e As EventArgs) Handles
    TextBox2.LostFocus
```

```
        TextBox3.Focus()
```

```
End Sub
```

2. 输入文本后进行判断

```
Private Sub TextBox3_LostFocus(sender As Object, e As EventArgs) Handles
```

```
    TextBox3.LostFocus
```

```
    Dim a%, b%, c%, d%, f%
```

```
    a = Val(TextBox2.Text)
```

```
    If a < 0 Then
```

```
        MsgBox("输入只数为负数", , "警告")
```

```
        TextBox2.Text = ""
```

```
        TextBox2.Focus()
```

```
    End If
```

```
    b = Val(TextBox3.Text)
```

```
    c = b Mod 2
```

```
    If c <> 0 Then
```

```
        MsgBox("输入总脚数必须是偶数", , "警告")
```

```
        TextBox3.Text = ""
```

```
        TextBox3.Focus()
```

```
    End If
```

```
    d = Solv(a, b)
```

```
    f = a - d
```

```
    If d > 0 And f > 0 Then
```

```
        TextBox4.Text = f & " " & d
```

```
    Else
```

```
        MsgBox("荒唐解，请重新输入", , "警告")
```

```
        TextBox2.Text = ""
```

```
        TextBox3.Text = ""
```

```
        TextBox2.Focus()
```

```
    End If
```

```
End Sub
```

```
Friend WithEvents Label1 As Label
```

```
Friend WithEvents Label2 As Label
```

```
Friend WithEvents Label3 As Label
```

```
Friend WithEvents Label4 As Label
```

```
Friend WithEvents TextBox2 As TextBox
```

```
Friend WithEvents TextBox3 As TextBox
```

```
Friend WithEvents TextBox4 As TextBox
```

