

1.3 The following program converts a real temperature obtained from the input data from Fahrenheit to Celsius. The conversion formulas are

$$\text{Celsius} = \frac{5}{9}(\text{Fahrenheit} - 32)$$

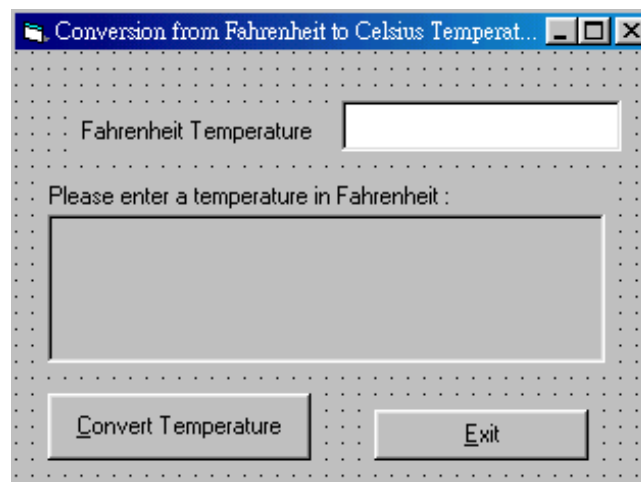
$$\text{Fahrenheit} = \frac{9}{5}\text{Celsius} + 32$$

Step 1: *Create a form with two command buttons, two labels, one text box and one picture box according to the properties table below*

Properties Table

| Object | Property | Setting |
|----------------|----------|---|
| Form | Name | frmTemperature |
| | Caption | Conversion from Fahrenheit to Celsius temperature |
| Command Button | Name | cmdConvert |
| | Caption | &Convert Temperature |
| Command Button | Name | cmdExit |
| | Caption | &Exit |
| Label | Name | lblTemp |
| | Caption | Fahrenheit Temperature |
| Label | Name | lblMessage |
| | Caption | Please enter a temperature in Fahrenheit : |
| Text Box | Name | txtFahrenheit |
| | Caption | (empty) |
| Picture Box | Name | picOutput |
| | Caption | (empty) |

Layout



Step 2 : *Add codes for the events*
cmdConvert_Click()
cmdExit

Codes for **cmdConvert**

```
Private Sub cmdConvert_Click()  
    Dim Celsius As Single, Fahrenheit As Single  
    Factor1 = 32  
    Conversion_factor = 5 / 9  
  
    picOutput.Cls  
    Fahrenheit = Val(txtFahrenheit.Text)  
    Celsius = Conversion_factor * (Fahrenheit - Factor1)  
    picOutput.Print "For a Fahrenheit temperature "; Fahrenheit  
    picOutput.Print "The equivalent Celsius temperature is "; Celsius  
  
End Sub
```

Codes for **cmdExit**

```
Private Sub cmdExit_Click()  
    End  
End Sub
```

Step 3 : *Execution*

Click the **txtTemperature** text box and type 98
Click the **Convert Temperature** command button
Try other values for Fahrenheit temperature
Terminate the program by clicking the **Exit** button

Task: *Try to modify the program to converts a Celsius temperature to a Fahrenheit temperature.*