A)

1-write program in vb to check number x is nagative or posetive
And show the result in massegebox.

```
Private Sub Command2_Click()

Dim x As Integer

x = InputBox("enter x")

If x > 0 Then MsgBox ("number is positve")

If x < 0 Then MsgBox ("number is nagative")


End Sub
```

2-write program to find the values z,y,w from the following if $A \geq 0$

$$\begin{Bmatrix} z = Ax^2 + 5 \\ y = \sqrt{z - 2x} \\ w = \sqrt{Az} \end{Bmatrix}$$

```
Private Sub Command3_Click()

Dim a, x As Single

Dim z, y, w As Single

a = InputBox("enter value of A")

If a >= 0 Then

x = InputBox("enter value of x")

z = a * x ^ 2 + 5

y = Sqr(z - 2 * x)

w = Sqr(a * z)

Print "z="; z

Print "y="; y

Print "w="; w
```

End If

End Sub

B)

1- Write program to find the values of X,Y, Z as double if t ≥ 0

$X=t-t^2+t^3$

$Y=\sin^{2(}t)-\tan(t)$

$Z=e^{2t}-t+1$

```
Private Sub Command4_Click()
Dim t As Integer
t = InputBox("enter t")
x=t-t^2+t^3
y = Sin(t) * Sin(t) + tan(t)
z=exp(2*t)-t+1
Print "x="; x
Print "y="; y
Print "z="; z
End Sub
```

2-write program in vb to check number x is odd number or even
And show the result in massegebox

```
Private Sub Command1_Click()

Dim x As Integer

x = InputBox("enter x")

If x Mod 2 = 0 Then MsgBox ("number is even")

If x Mod 2 <> 0 Then MsgBox ("number is odd")

End Sub
```

C)1-Write program in vb to Solve the following equation

to find values of ,x1,x2

$$[x1, x2] = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

```
Private Sub Command5_Click()

Dim a, b, c As Single

Dim x1, x2 As Single

Dim d As Single

a = InputBox("enter a ")

b = InputBox("enter b")

c = InputBox("enter c")

If a = 0 Then

MsgBox ("this no quatric quation")

End

End If
```

```
d = b ^ 2 - 4 * a * c

If d > 0 Then

MsgBox ("we  have real soluaions ")

x1 = (-b + Sqr(d)) / (2 * a)

x2 = (-b - Sqr(d)) / (2 * a)

Print "x1"; x1

Print "x2"; x2

ElseIf d = 0 Then

MsgBox ("x1=x2")

x1 = (-b) / (2 * a)

Print "one roots"; x1

Else

MsgBox ("we dont have real solutions ")

End If

End sub
```

2- Write a program to enter a value of x and compute the value of y where

$$y=\begin{cases} x \ if \ x \geq 0 \\ -x \ if \ x < 0 \end{cases}$$

```
Private Sub Command6_Click()


Dim x as single

X=inputbox("enter x")

If x>=0 then y=x

If x<0 then y=-x

Print "y="; y

End sub
```