

```
'KONSTANTA
Const F = 25000
Dim FOUND As Boolean
Dim THETA1 As Double
Dim THETA2 As Double
Dim HASILXL As Double
Dim HASILXC As Double
Dim HASILR As Double
Dim HASILZ As Double
Private Sub DISPLAY(STATUS As Boolean)

Me.txtC.Enabled = Not STATUS
Me.txtR.Enabled = Not STATUS
Me.txtL.Enabled = Not STATUS
Me.i1.Visible = STATUS
Me.i2.Visible = STATUS
Me.i3.Visible = STATUS
Me.i4.Visible = STATUS
Me.i5.Visible = STATUS
Me.i6.Visible = STATUS
Me.i7.Visible = STATUS
Me.i8.Visible = STATUS
Me.i9.Visible = STATUS
Me.i10.Visible = STATUS
Me.i11.Visible = STATUS
Me.i12.Visible = STATUS
Me.i13.Visible = STATUS
Me.i14.Visible = STATUS
Me.i15.Visible = STATUS
Me.i16.Visible = STATUS
Me.T1.Visible = STATUS
Me.T2.Visible = STATUS
Me.lblmain.Visible = STATUS
Me.blxl.Visible = STATUS
Me.blxc.Visible = STATUS
Me.blz.Visible = STATUS
Me.lbt1.Visible = STATUS
Me.lbt2.Visible = STATUS
Me.rtbl.Visible = STATUS
Me.ctbl.Visible = STATUS

If STATUS = True Then
    Me.cmdHITUNG.Caption = "RESET"
Else
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    Me.cmdHITUNG.Caption = "HITUNG"
End If

End Sub

Private Sub DISPLAY1(STATUS As Boolean)
Me.txtC.Enabled = Not STATUS
Me.txtR.Enabled = Not STATUS
Me.txtL.Enabled = Not STATUS
Me.11.Visible = STATUS
Me.12.Visible = STATUS
Me.13.Visible = STATUS
Me.14.Visible = STATUS
Me.15.Visible = STATUS
Me.110.Visible = STATUS
Me.111.Visible = STATUS
Me.112.Visible = STATUS
Me.113.Visible = STATUS
Me.lbt1.Visible = STATUS
Me.lblmain.Visible = STATUS
Me.lblxl.Visible = STATUS
Me.lblxc.Visible = STATUS
Me.lblz.Visible = STATUS
If STATUS = True Then
    Me.cmdHITUNG.Caption = "RESET"
Else
    Me.cmdHITUNG.Caption = "HITUNG"
End If

End Sub

Private Sub cmdHITUNG_Click()
On Error Resume Next

If cmdHITUNG.Caption = "RESET" Then
    DISPLAY False
    Me.txtC.Text = ""
    Me.txtL.Text = ""
    Me.txtR.Text = ""
    'Me.lblHASIL = ""

Else

    ' CEK DATA YANG DIINPUT NUMERIC ATAU BUKAN
```

If IsNumeric(Me.txtC) = True And IsNumeric(Me.txtR) = True And
IsNumeric(Me.txtC.Left) = True Then

HASILXL = XL(Me.txtL)
HASILXC = XC(Me.txtC)
HASILZ = Z(HASILXL, HASILXC, Me.txtR) ' HITUNG Z
THETA1 = THETA(HASILZ, Me.txtR) ' HITUNG THETA

If THETA1 = CDb1(1) Then ' JIKA THETA SUDAH BERNILAI 1
TAMPILKAN HASIL XL, XC, Z, DAN THETA

DISPLAY1 True
Me.lbx1.Caption = HASILXL
Me.lbx2.Caption = HASILXC
Me.lbx3.Caption = HASILZ
Me.lbt1.Caption = THETA1

Exit Sub ' HENTIKAN PROSES

End If

' THETA BELUM BERNILAI 1 MAKA DILAKUKAN PROSES
PENCARIAN RELUKTANS DAN PERMEANS YANG COCOK DARI INTI
MAGNET TIPE E

FOUND = False

THETA2 = 0
rtbl = 84400
ctbl = 0.000000113

Do While THETA2 < 1 ' LAKUKAN PENGULANGAN HINGGA
MENDAPAT RELUKTANS DAN PERMEANS YANG COCOK SAMPAI THETA
BERNILAI 1

HASILXL = XL(Me.txtL + CDb1(643.7))
HASILXC = XC(Me.txtC + CDb1(ctbl))
HASILR = CDb1(rtbl) + Me.txtR
HASILZ = Z(HASILXL, HASILXC, HASILR) ' HITUNG Z
THETA2 = THETA(HASILZ, HASILR) ' MENGHITUNG THETA

```
If THETA2 = 1 Then ' JIKA THETA SUDAH BERNILAI 1  
TAMPILKAN HASIL XL, XC, THETA1, THETA2 , RELUKTANS INTI  
MAGNET, PERMEANS INTI MAGNET , DAN Z
```

```
    DISPLAY True  
    Me.lblxl.Caption = HASILXL  
    Me.lblxc.Caption = HASILXC  
    Me.lblt1.Caption = THETA1  
    Me.lblz.Caption = HASILZ  
    Me.lblt2.Caption = THETA2  
    Me.rtbl.Caption = rtbl  
    Me.ctbl.Caption = ctbl
```

```
        FOUND = True  
        Exit Do ' HENTIKAN PENGULANGAN
```

```
Else
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```
    If rtbl >= 88400000 Or ctbl >= 0.000011848 Then  
        FOUND = False  
        Exit Do
```

```
    Else
```

```
        ' BELUM DITEMUKAN R DAN C YANG COCOK,  
TAMBAHKAN RTBL(NILAI PERMEANS) DAN CTBL(NILAI PERMEANS)  
        rtbl = rtbl + 1  
        ctbl = ctbl + 0.000000000001
```

```
    End If
```

```
End If
```

```
Loop ' ULANGI PROSES
```

```
If FOUND = False Then ' DATA TIDAK DITEMUKAN
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```
    Me.lblmain.Caption = "DATA TIDAK DITEMUKAN"
```

```
End If
```

End If

End If

End Sub

```
' FUNGSI UNTUK MENGHITUNG XL
Private Function XL(L As Double) As Double
XL = FormatNumber(2 * (22 / 7) * F * L, 6)
End Function
```

```
' FUNGSI UNTUK MENGHITUNG XC
Private Function XC(C As Double) As Double
XC = FormatNumber(1 / (2 * (22 / 7) * F * C), 6)
End Function
```

```
' FUNGSI UNTUK MENGHITUNG THETA
Private Function THETA(R As Double, ZZ As Double) As Double
THETA = FormatNumber(Cos((Cos(R / ZZ)) / (Sin(R / ZZ))), 6)
End Function
```

```
' FUNGSI UNTUK MENGHITUNG Z
Private Function Z(XL As Double, XC As Double, R As Double) As Double
Dim ZZ As Double
ZZ = ((R ^ 4 + ((XL - XC) ^ 4)) ^ 0.5) ^ 0.5
```

```
If ZZ < 0 Then ' MUTLAKKAN Z
    ZZ = ZZ * -1
End If
```

```
Z = FormatNumber(ZZ, 6)
```

```
End Function
```