

```
Sub MakeRuler_inch()
```

```
'Define the size of a new ruler.
```

```
Const Ruler_Width As Double = 6 'Width 6 inch
```

```
Const Ruler_Height As Double = 5 'Height 5 inch
```

```
'The setting size on the screen and the actual size on the printer.
```

```
Const Screen_Width As Double = 6
```

```
Const Screen_Height As Double = 5
```

```
Const Printer_Width As Double = 6
```

```
Const Printer_Height As Double = 5
```

```
Dim i As Long
```

```
Dim l As Double
```

```
Dim x As Long
```

```
Dim y As Long
```

```
Dim ws As Worksheet
```

```
Dim a(0 To 15) As Double
```

```
Dim x2 As Double
```

```
Dim y2 As Double
```

```
x = Ruler_Width * 16
```

```
y = Ruler_Height * 16
```

```
a(0) = 3.6: a(1) = 1: a(2) = 2: a(3) = 1: a(4) = 2: a(5) = 1: a(6) = 2: a(7) = 1
```

```
a(8) = 3: a(9) = 1: a(10) = 2: a(11) = 1: a(12) = 2: a(13) = 1: a(14) = 2: a(15) = 1
```

```
Application.ScreenUpdating = False
```

```
Set ws = ActiveSheet
```

```
Worksheets.Add
```

```
ActiveSheet.Move
```

```
ActiveSheet.Lines.Add 0, 0, 3 * x, 0
```

```
For i = 1 To x
```

```
    l = a(i Mod 16)
```

```
    ActiveSheet.Lines.Add 3 * i, 0, 3 * i, 3 * l
```

Next

ActiveSheet.Lines.Add 0, 0, 0, 3 * y

For i = 1 To y

 l = a(i Mod 16)

 ActiveSheet.Lines.Add 0, 3 * i, 3 * l, 3 * i

Next

ActiveSheet.Lines.Border.ColorIndex = 55

For i = 16 To x - 1 Step 16

 With ActiveSheet.TextBoxes.Add(3 * i - 9, 3 * 3.6, 18, 12)

 .Text = Format(i \ 16, "!@@")

 End With

Next

For i = 16 To y - 1 Step 16

 With ActiveSheet.TextBoxes.Add(3 * 3.6, 3 * i - 9, 12, 18)

 .Orientation = xlDownward

 .Text = Format(i \ 16, "!@@")

 End With

Next

With ActiveSheet.TextBoxes

 .Font.Size = 9

 .Font.ColorIndex = 55

 .HorizontalAlignment = xlCenter

 .VerticalAlignment = xlCenter

 .Border.ColorIndex = xlNone

 .Interior.ColorIndex = xlNone

End With

With ActiveSheet.DrawingObjects.Group

 .Placement = xlFreeFloating

 .Width = Application.InchesToPoints(x / 16)

 .Height = Application.InchesToPoints(y / 16)

 .CopyPicture xlScreen, xlPicture

```

ActiveSheet.Paste

x2 = (Selection.Width - .Width) / 3
y2 = (Selection.Height - .Height) / 3

Selection.Delete

.CopyPicture xlPrinter, xlPicture

ActiveSheet.Paste

.Width = .Width * .Width / (Selection.Width - x2 * 2) * Screen_Width / Printer_Width
.Height = .Height * .Height / (Selection.Height - y2 * 2) * Screen_Height / Printer_Height

Selection.Delete

If Val(Application.Version) >= 9 Then

    .Copy

    ActiveSheet.PasteSpecial 'Format:="Picture (PNG)"

    With Selection.ShapeRange.PictureFormat

        .CropLeft = x2

        .CropTop = y2

        .CropRight = x2

        .CropBottom = y2

    End With

    Selection.Copy

    ws.Activate

    ws.PasteSpecial 'Format:="Picture (PNG)"

    Selection.Placement = xlFreeFloating

    .Parent.Parent.Close False

End If

End With

Application.ScreenUpdating = True

End Sub

'Ruler for Excel(Centimeter)

Sub MakeRuler_cm()

'Define the size of a new ruler.

Const Ruler_Width As Double = 21 'Width 16 cm

```

```
Const Ruler_Height As Double = 28 'Height 14 cm
```

'The setting size on the screen and the actual size on the printer.

```
Const Screen_Width As Double = 21
```

```
Const Screen_Height As Double = 28
```

```
Const Printer_Width As Double = 21
```

```
Const Printer_Height As Double = 28
```

```
Dim i As Long
```

```
Dim l As Long
```

```
Dim x As Long
```

```
Dim y As Long
```

```
Dim ws As Worksheet
```

```
Dim x2 As Double
```

```
Dim y2 As Double
```

```
x = Ruler_Width * 10
```

```
y = Ruler_Height * 10
```

```
Application.ScreenUpdating = False
```

```
Set ws = ActiveSheet
```

```
Worksheets.Add
```

```
ActiveSheet.Move
```

```
ActiveSheet.Lines.Add 0, 0, 3 * x, 0
```

```
For i = 1 To x
```

```
    If i Mod 10 = 0 Then l = 5 Else: If i Mod 5 = 0 Then l = 4 Else l = 3
```

```
    ActiveSheet.Lines.Add 3 * i, 0, 3 * i, 3 * l
```

```
Next
```

```
ActiveSheet.Lines.Add 0, 0, 0, 3 * y
```

```
For i = 1 To y
```

```
    If i Mod 10 = 0 Then l = 5 Else: If i Mod 5 = 0 Then l = 4 Else l = 3
```

```
    ActiveSheet.Lines.Add 0, 3 * i, 3 * l, 3 * i
```

```
Next
```

```
ActiveSheet.Lines.Border.ColorIndex = 55
```

```
For i = 10 To x - 1 Step 10
```

```
    With ActiveSheet.TextBoxes.Add(3 * i - 9, 3 * 5, 18, 12)
```

```
        .Text = Format(i \ 10, "!@@")
```

```
    End With
```

```
Next
```

```
For i = 10 To y - 1 Step 10
```

```
    With ActiveSheet.TextBoxes.Add(3 * 5, 3 * i - 9, 12, 18)
```

```
        .Orientation = xlDownward
```

```
        .Text = Format(i \ 10, "!@@")
```

```
    End With
```

```
Next
```

```
With ActiveSheet.TextBoxes
```

```
    .Font.Size = 9
```

```
    .Font.ColorIndex = 55
```

```
    .HorizontalAlignment = xlCenter
```

```
    .VerticalAlignment = xlCenter
```

```
    .Border.ColorIndex = xlNone
```

```
    .Interior.ColorIndex = xlNone
```

```
End With
```

```
With ActiveSheet.DrawingObjects.Group
```

```
    .Placement = xlFreeFloating
```

```
    .Width = Application.CentimetersToPoints(x / 10)
```

```
    .Height = Application.CentimetersToPoints(y / 10)
```

```
    .CopyPicture xlScreen, xlPicture
```

```
ActiveSheet.Paste
```

```
x2 = (Selection.Width - .Width) / 3
```

```
y2 = (Selection.Height - .Height) / 3
```

```
Selection.Delete
```

```
.CopyPicture xlPrinter, xlPicture
```

```
ActiveSheet.Paste
```

```
.Width = .Width * .Width / (Selection.Width - x2 * 2) * Screen_Width / Printer_Width
```

```
.Height = .Height * .Height / (Selection.Height - y2 * 2) * Screen_Height / Printer_Height
Selection.Delete
If Val(Application.Version) >= 9 Then
    .Copy
    ActiveSheet.PasteSpecial 'Format:="Picture (PNG)"
    With Selection.ShapeRange.PictureFormat
        .CropLeft = x2
        .CropTop = y2
        .CropRight = x2
        .CropBottom = y2
    End With
    Selection.Copy
    ws.Activate
    ws.PasteSpecial 'Format:="Picture (PNG)"
    Selection.Placement = xlFreeFloating
    .Parent.Parent.Close False
End If
End With
Application.ScreenUpdating = True
End Sub
```