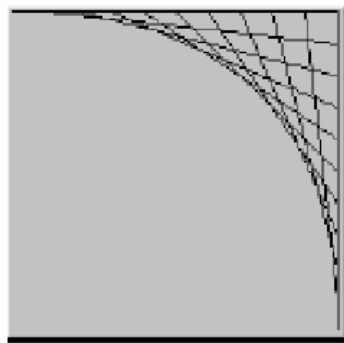
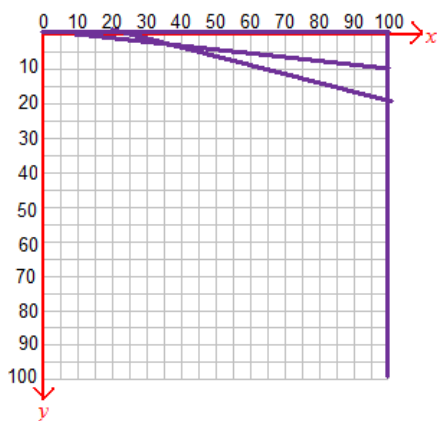


Examples of Writing "For...Next" Loops to Make Pics

- ① Draw a few of the lines on the grid.
- ② Record co-ordinates of endpoints in table of values
- ③ Look for patterns.



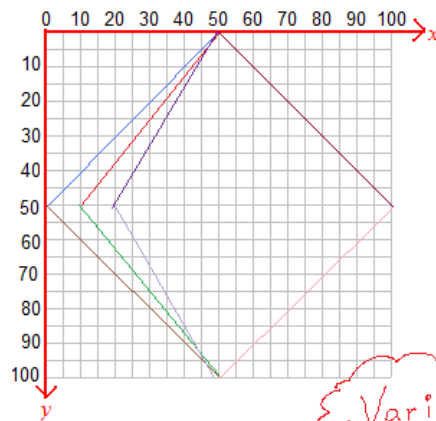
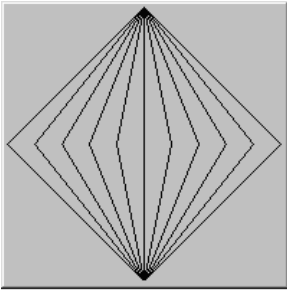
Start	End
(0,0)	(100,0)
(10,0)	(100,10)
(20,0)	(100,20)
⋮	⋮
(I,0)	(100,I)
(100,0)	(100,100)

Dim I As Integer
 Loop counter variable
 For I = 0 To 100 Step 10
 Me.Line (I,0) - (100,I)
 Next I

variable name
 type of data
 use Single if you want numbers that are not whole.
 constant

Me.Line (I,0) - (100,I)

Next I



Top Section

Start	End
(50, 0)	(0, 50)
(50, 0)	(10, 50)
(50, 0)	(20, 50)
⋮	⋮
(50, 0)	(I, 50)
⋮	⋮
(50, 0)	(100, 50)

Bottom Section

Start	End
(50, 100)	(0, 50)
(50, 100)	(10, 50)
(50, 100)	(20, 50)
⋮	⋮
(50, 100)	(I, 50)
⋮	⋮
(50, 100)	(100, 50)

Dim I As Integer

Variable
declaration
statement

For I = 0 To 100 Step 10

Me, Line (50, 0) - (I, 50) 'Line in top section

Me, Line (50, 100) - (I, 50) 'Line in bottom section

Next I

These are called
"comments." They are
used to help people understand
the code. Comments are ignored
by the computer.

A Trickier Drawing

The following drawing is somewhat more difficult because it consists of two sections.



Start	End
(0,0)	(100,100)
(0,0)	(100,95)
(0,0)	(100,90)
⋮	⋮
(0,0)	(100, ?)
⋮	⋮
(0,0)	(100,0)

Start	End
(100,0)	(0,100)
(100,0)	(0,95)
(100,0)	(0,90)
⋮	⋮
(100,0)	(0, ?)
⋮	⋮
(100,0)	(0,0)

The only VARIABLE values are the y-co-ordinates of the END points. The difference in this case is that these y-values DECREASE instead of INCREASING. There are Two ways to handle this.

Count UP

For I=0 To 100 Step 5

Me.Line (0,0)-(100,100-I)

Me.Line (100,0)-(0,100-I)

Next I

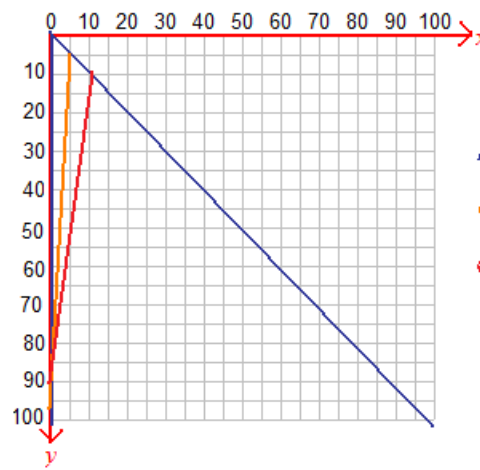
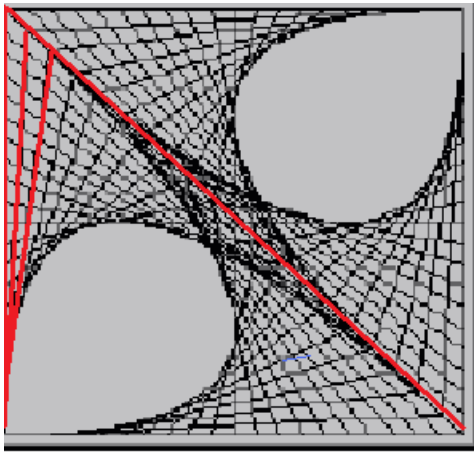
Count Down

For I=100 To 0 Step -5

Me.Line (0,0)-(100,I)

Me.Line (100,0)-(0,I)

Next I



Top Left Section

Start	End
• (0,0)	(0,100)
• (5,5)	(0,95)
• (10,10)	(0,90)
⋮	⋮
(I, I)	(0, 100-I)
⋮	⋮
(100,100)	(0,0)

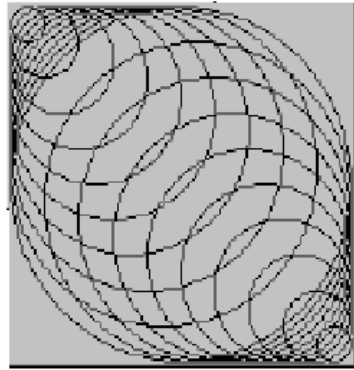
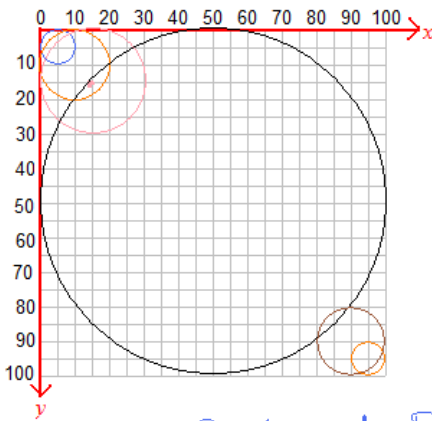
For I = 0 To 100 Step 5

Me.Line (I, I)-(0,100-I)

3 more statements
to complete picture

Next I

There are Four
Sections in this
Picture!



Centre	Radius
(95, 95)	5
(90, 90)	10
⋮	⋮
(100-I, 100-I)	I
⋮	⋮
(50, 50)	50

Centre	Radius
(5, 5)	5
(10, 10)	10
(15, 15)	15
⋮	⋮
(I, I)	I
⋮	⋮
(50, 50)	50

Dim I As Integer

For I = 0 To 50 Step 5

Me.Circle (I, I), I

Me.Circle (100-I, 100-I), I

Next I