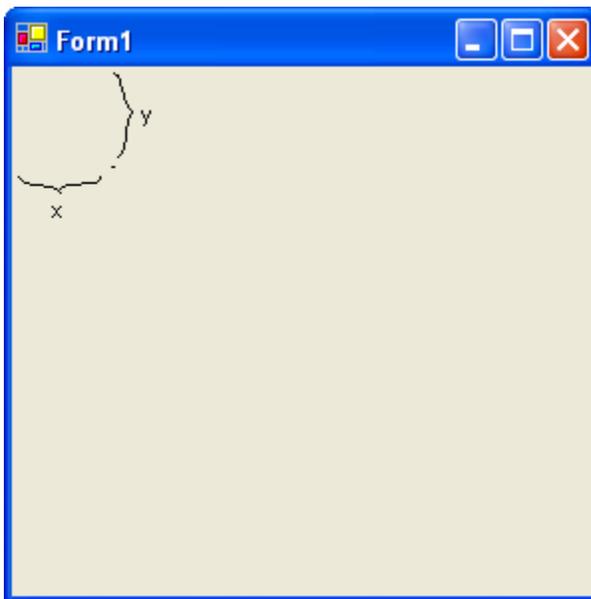# Visual Basic DrawArc Study Guide
by Sam Wiley

How It Works:

The `DrawArc` command is not as simple as it seems, so pay attention.

1.) You choose an (x,y) coordinate. What this means is, the first number (your x) is how many pixels away from the left side of the form you make your point, and the second number (your y) is how far away from the top your point is.

```
e.Graphics.DrawArc(50, 50,
```


The small dot is where the point (50, 50) is.

2.) You will choose a width and height for the rectangle you are making. You might say, "But Sam, I'm not making a rectangle." Just keep reading. Your third number will be your width (how wide) and your fourth number will be your height (how high). Don't be confused – even though it is height, the number you put in will be how far <u>down</u> your rectangle goes from your point.
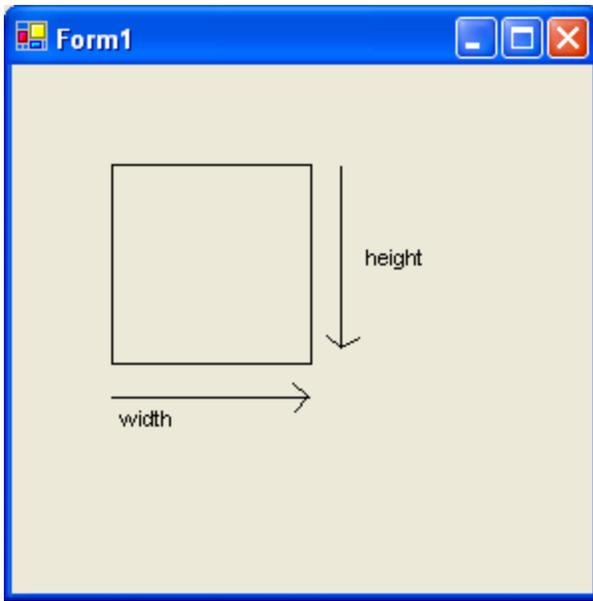
"width" and "height" will not actually show, nor will the rectangle.

3.) The computer will draw an ellipse in the rectangle touching all sides of the rectangle. Up to this point, this is exactly how `DrawEllipse` works.
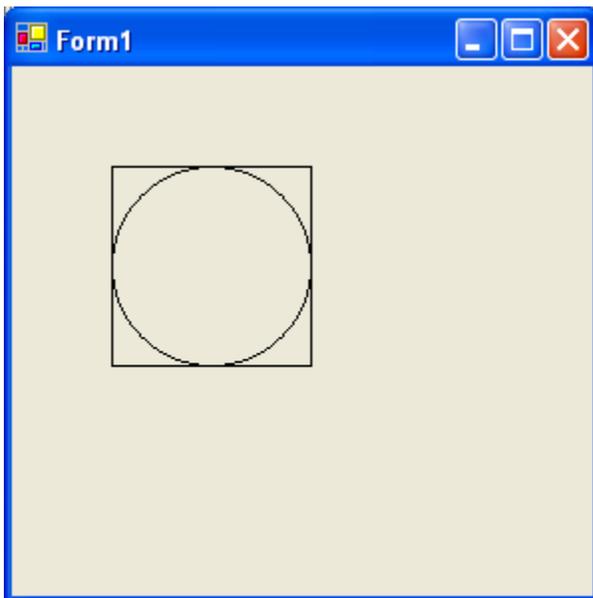
4.) This is where it gets tricky, especially for those of you who aren't in advanced math. The fifth number you choose is called your `startAngle`. This is the angle measure where your arc will START. The angle measures are contrary to conventional math, so see the picture on the next page to know where the angles are.
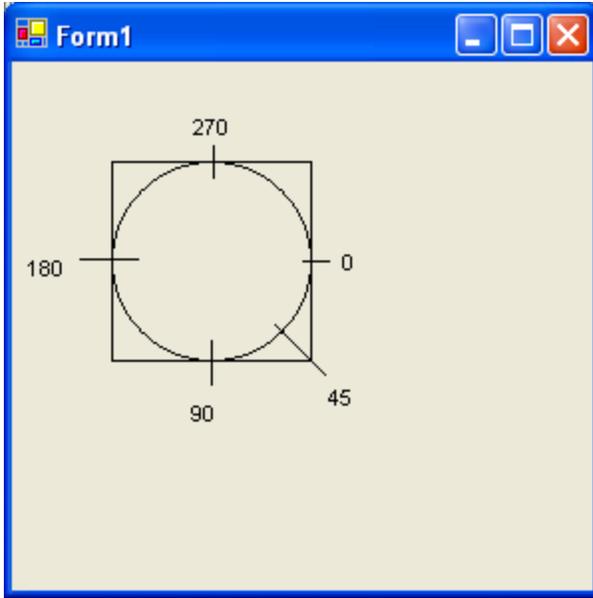
Note that there are 360 degrees in <u>every</u> circle. The number you choose is the number on the circle where you will start your arc.

Example: the number 200 will start just above the 180 on the circle.

5.) The final number you will input is called the `sweepAngle`. This is how many degrees your angle will CONTINUE from the point where you STARTED.
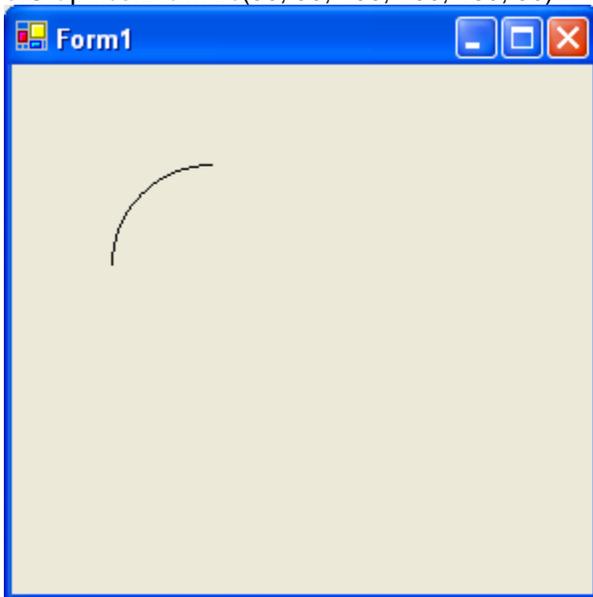
Example: If my `startAngle` is 180, and my `sweepAngle` is 90, it **will not** draw from 180 to 90, it will draw from 180 to 270 because 180 + 90 = 270.

Note: To draw a full circle, make your `sweepAngle` 360.
Note: You are allowed to type in negative numbers for your `sweepAngle` <u>ONLY.</u>
Therefore, if my `startAngle` is 180 and my `sweepAngle` is -90, it will go from 180 to 90 because 180 – 90 = 90.

Your result:
e.Graphics.DrawArc(50, 50, 100, 100, 180, 90)

And you're done.