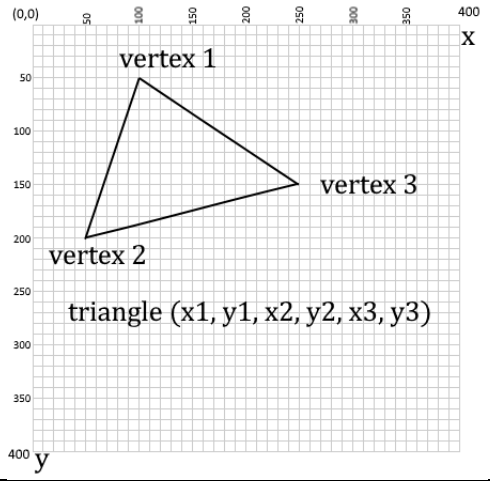
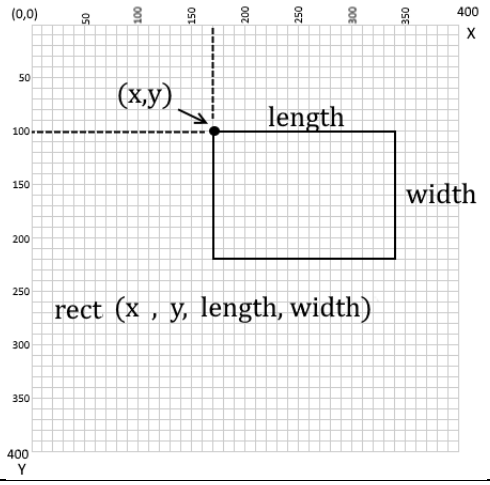
P5JS REFERENCE MATERIAL

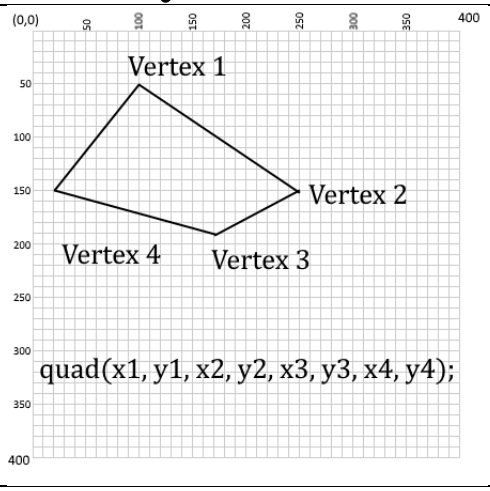
Triangles



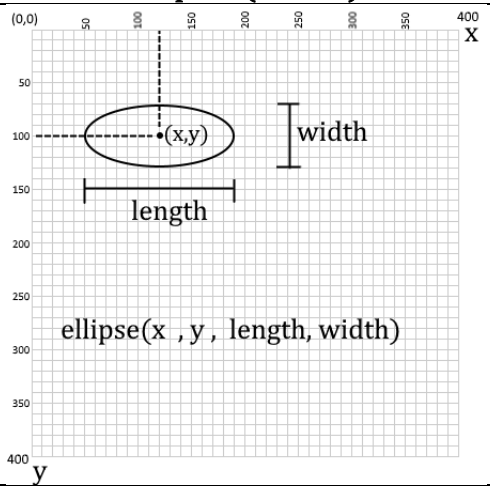
Rectangles (Squares)



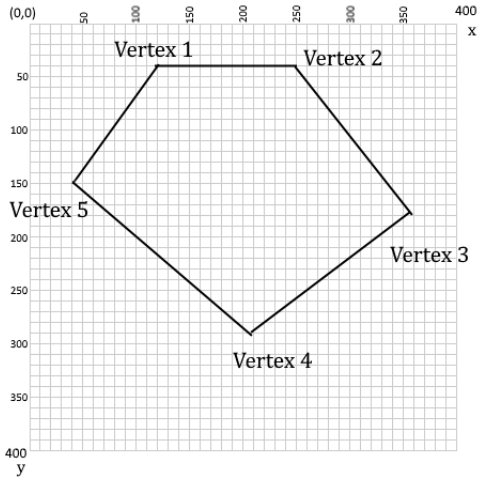
Quadrilaterals



Ellipses (Circles)



Polygons



To draw a polygon, first call the beginShape() function, then call the vertex(x, y) for each vertex of the polygon. End the shape with endShape(CLOSE).

```
beginShape();
vertex(x, y); //Coordinate of Vertex 1
vertex(x, y); //Coordinate of Vertex 2
vertex(x, y); //Coordinate of Vertex 3
vertex(x, y); //Coordinate of Vertex 4
vertex(x, y); //Coordinate of Vertex 5
endShape(CLOSE);
```

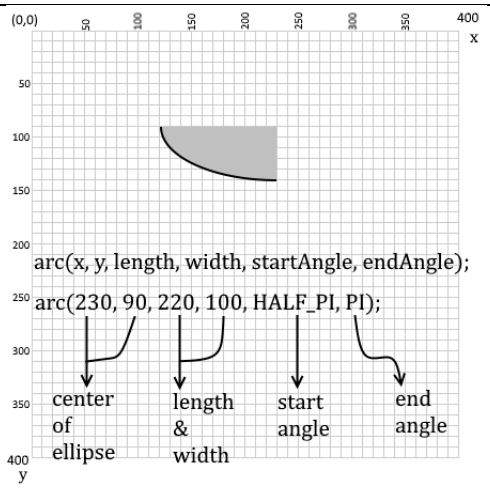
P5JS REFERENCE MATERIAL

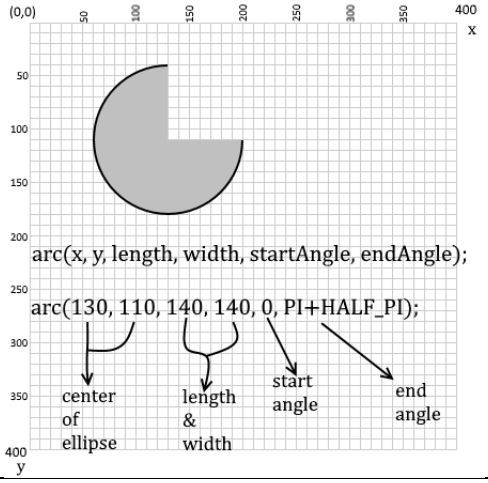
Arcs

Arcs are part of ellipses (or circles).

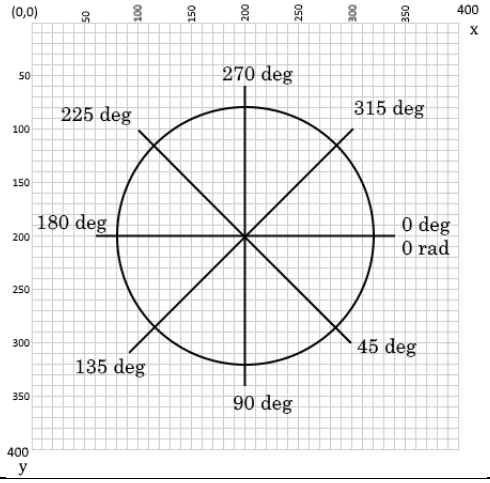
To draw an arc, we need to specify the start angle and end angle of the portion of the ellipse that we want to draw.

In p5js, angles are specified not in degrees but a unit called RADIANS. Angles are also measured in the CLOCKWISE direction.





Common Angle Measures in Degrees



Common Angle Measures

Degrees	Radians	p5js
0°	0	0
45°	$\frac{\pi}{4}$	QUARTER_PI
90°	$\frac{\pi}{2}$	HALF_PI
180°	π	PI
270°	1.5π	PI+HALF_PI
360°	2π	TWO_PI

Converting Degrees to Radians

The radians((angle) function in p5.js has a allows you to convert an angle measure from degrees to radians.

Example

- radians(128); will convert 128° to its equivalent measure in radians.
- radians(254); will convert 254° to its equivalent measure in radians.

This can be used in with the arc function.

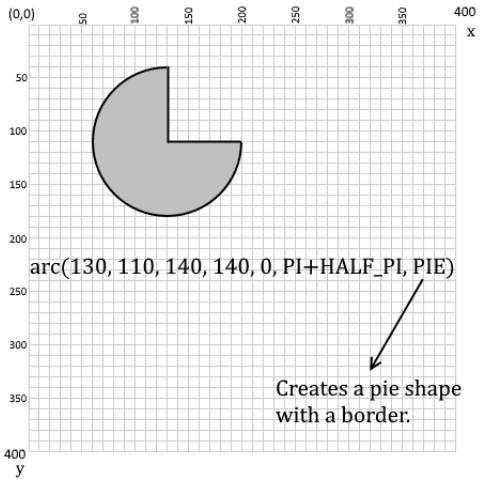
Arcs Continued

There are different to complete an arc depending whether you specify an additional parameter.

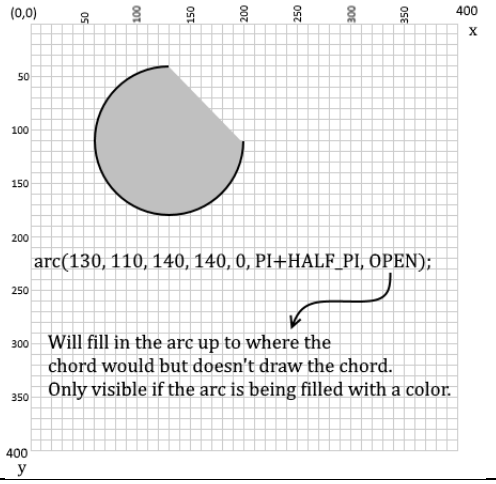
The default method is shown on Page 2 (notice there are only six parameters).

Three additional options using the 7th parameter around are shown to right and below.

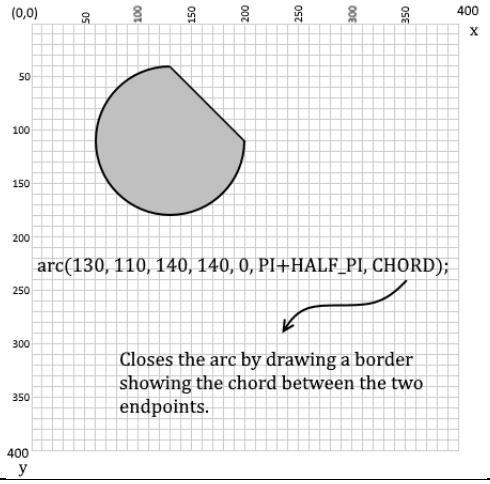
Pie Section with a Border



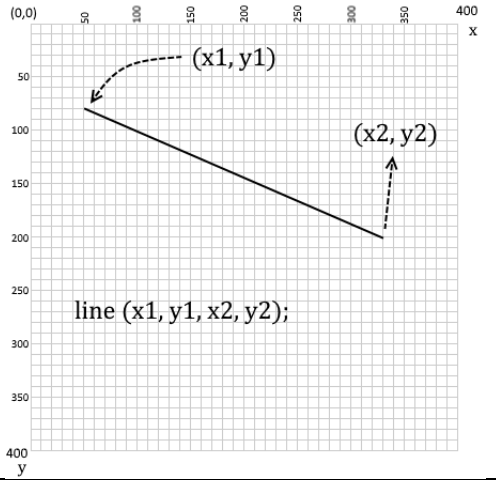
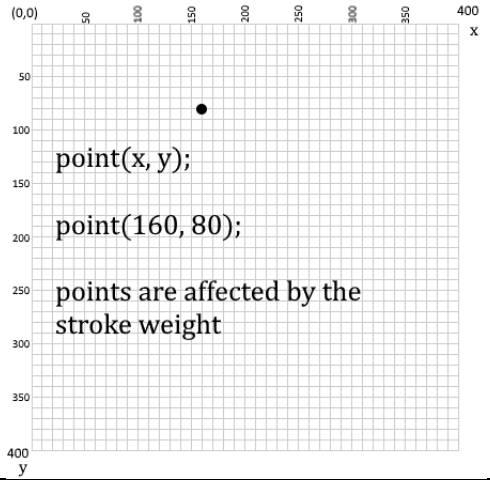
Fill up to the Chord with no Border



Draw Chord as a Border



Line Segments



Points