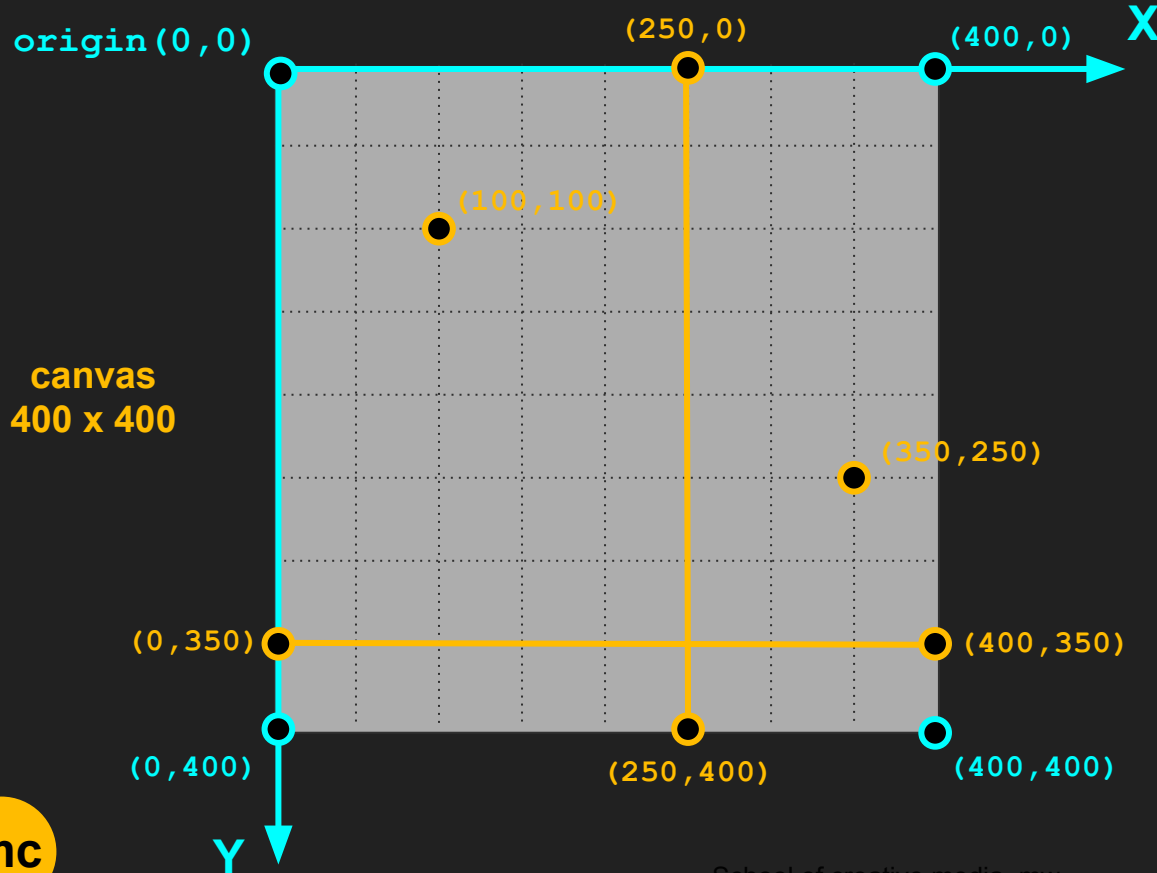





p5.js Shapes Reference



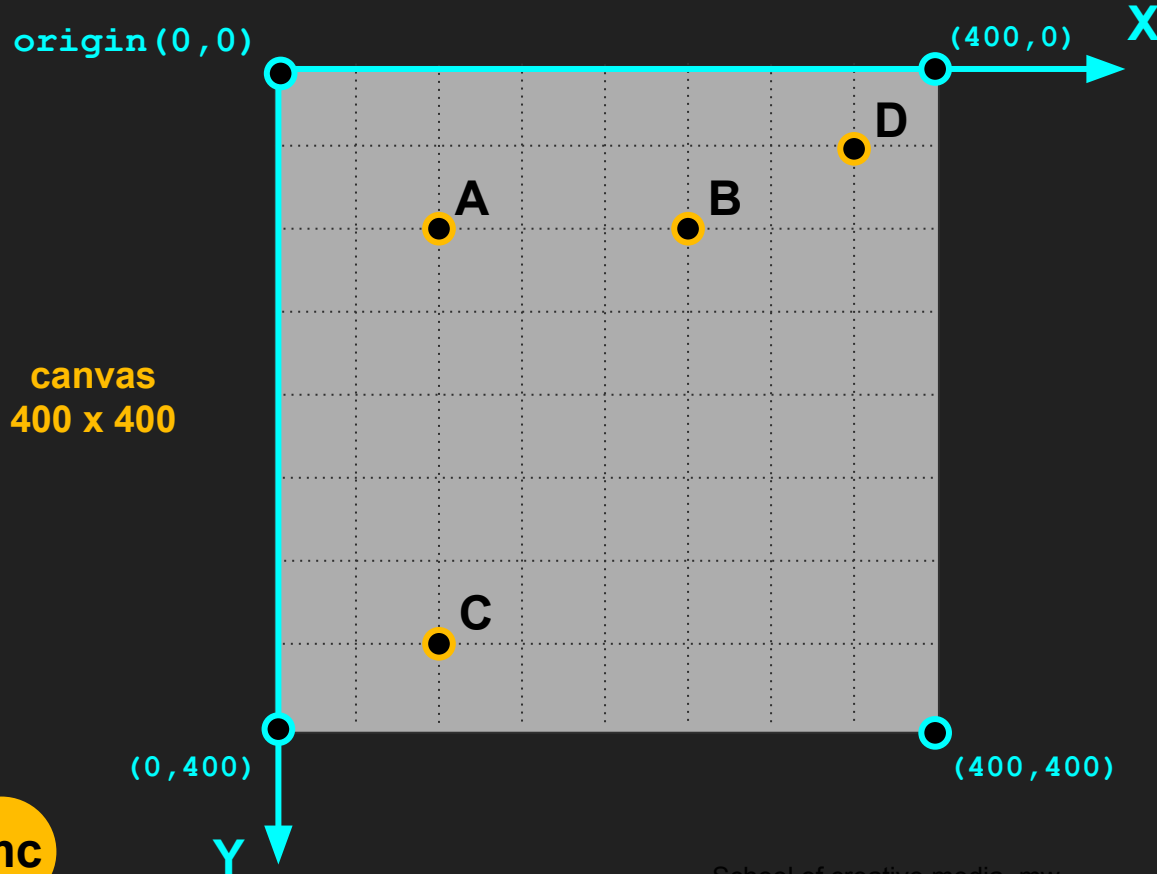
p5.js coordinate system



Position of a POINT  on a p5.js canvas is defined by a pair of numbers which we call a **coordinate** (x,y)
x = horizontal distance from the origin
y = vertical distance from the origin

The **origin** (0,0) of a p5.js canvas is at the **UPPER LEFT CORNER**.

`point(x,y) ;`



`point(x,y)`

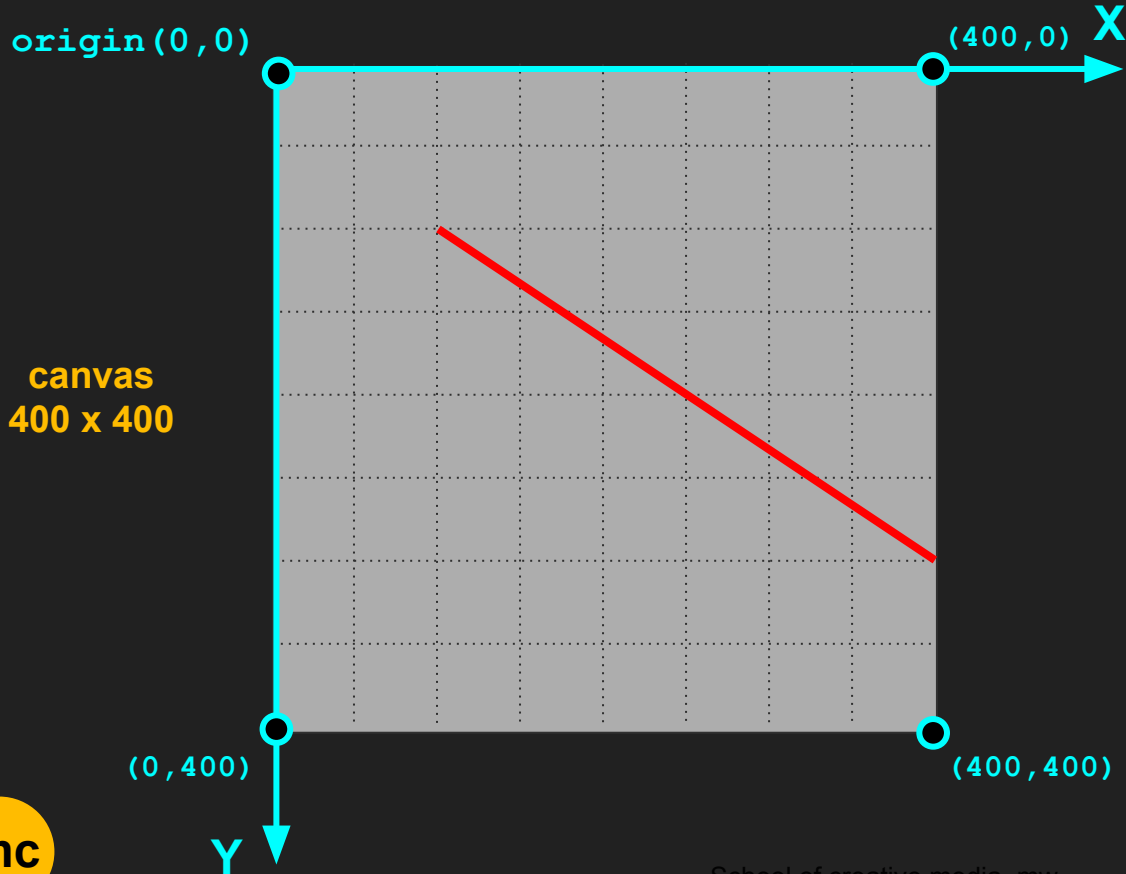
Draws a one-pixel point at the given position `(x,y)`.

color by: `stroke()`

Example:

```
let x0 = 100;
let y0 = 100;
point(x0, y0); // point A
point(250, y0); // point B
point(x0, 350); // point C
point(350, 50); // point D
```

```
line(x1,y1,x2,y2);
```



```
line(x1,y1,x2,y2)
```

Draws a line defined by two points,
(x1,y1) and (x2,y2)

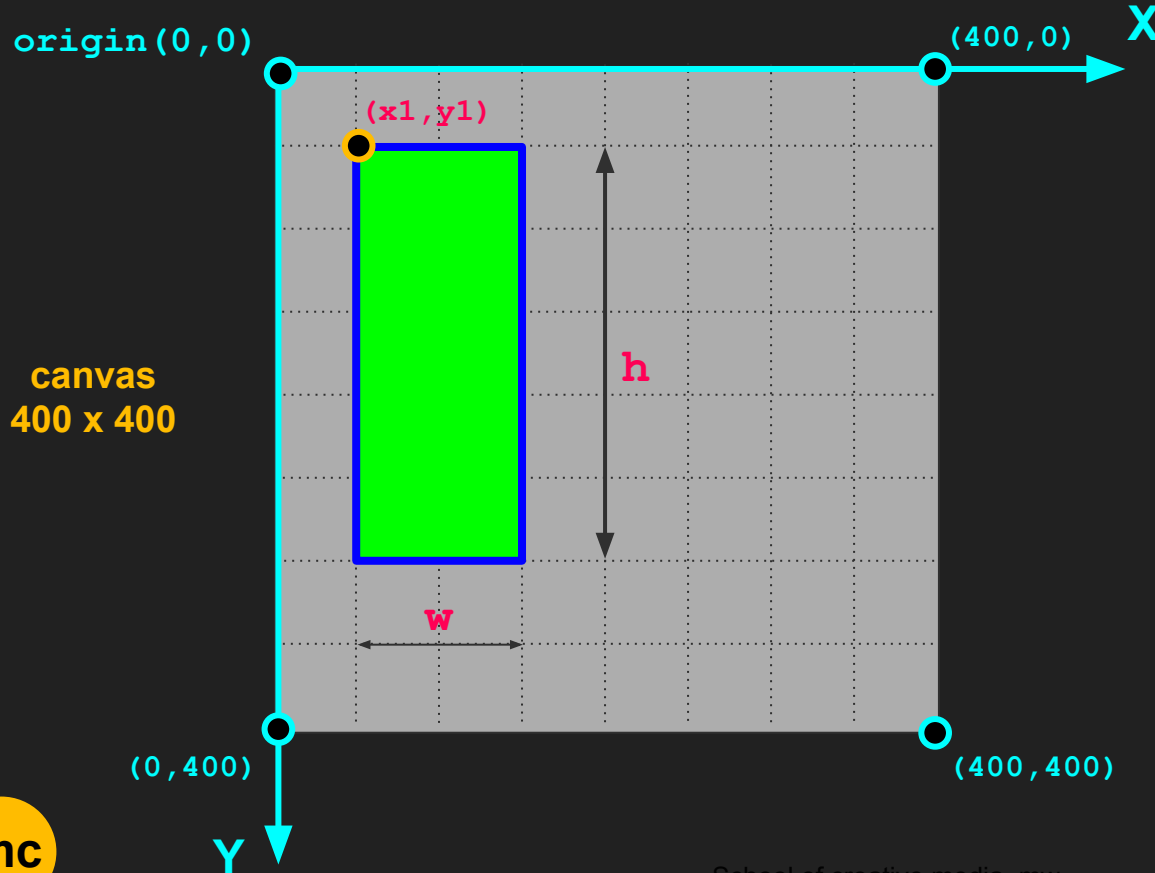
color by: `stroke()`

thickness by: `strokeWeight()`

Example:

```
let x0 = 100;  
let y0 = 100;  
stroke(255, 0, 0);  
strokeWeight(4);  
line(x0, y0, 400, 300);
```

```
rect(x1,y1,w,h,[r]);
```



```
rect(x1,y1,w,h,[r]);
```

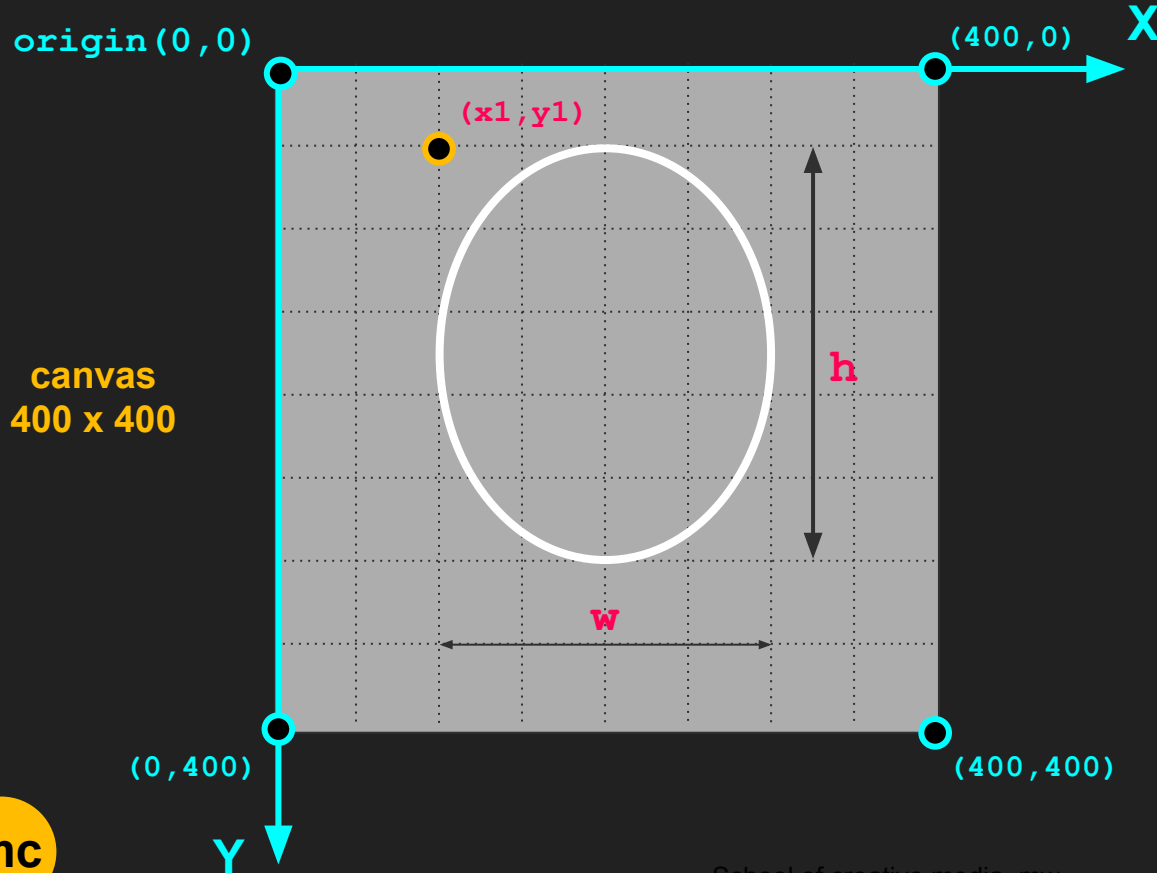
Draws a rectangle defined by a location point* (x1,y1), and the size (w,h) where w = width, and h = height. r is an optional parameter which defines the corner roundness radius in pixel.

location point:	upper left corner
outline color by:	stroke()
outline thickness by:	strokeWeight()
fill color by:	fill()

Example:

```
let w1 = 100;  
let h1 = 250;  
stroke(0, 0, 255);  
strokeWeight(4);  
fill(0, 255, 0);  
rect(50, 50, w1, h1);
```

```
ellipse(x1,y1,w,[h]);
```



```
ellipse(x1,y1,w,[h]);
```

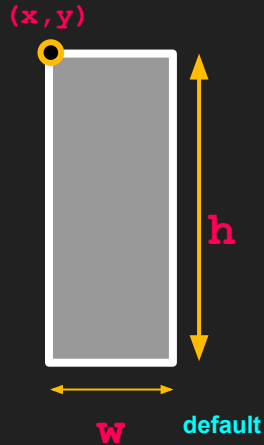
Draws a ellipse defined by a location point*
(x1,y1), and the size (w,h) where w = width,
and h = height. If h is not given, it draws a circle of
width w.

location point:	upper left corner
outline color by:	<code>stroke()</code>
outline thickness by:	<code>strokeWeight()</code>
fill color by:	<code>fill()</code>

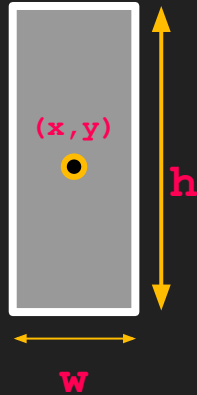
```
let w1 = 350;  
let h1 = 250;  
stroke(255);  
strokeWeight(4);  
noFill();  
ellipse(100, 50, w1, h1);
```

`rectMode (<mode>) ;`

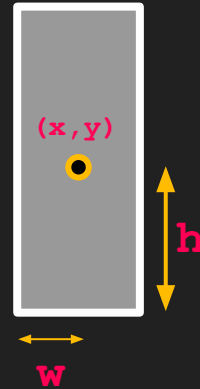
Defines how a rectangle shape `rect (x,y,w,h)` should be drawn.



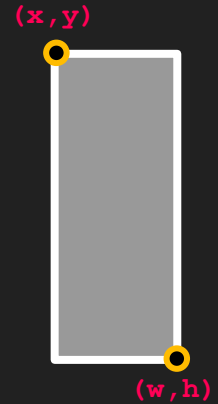
`rectMode (CORNER) ;`
(x,y) rectangle's
upper left corner.
w weight
h height



`rectMode (CENTER) ;`
(x,y) rectangle's
center.
w weight
h height



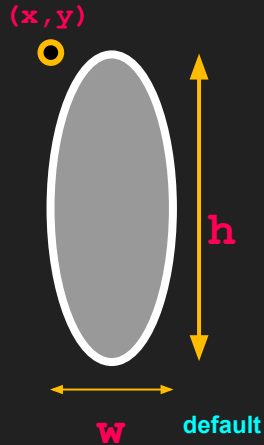
`rectMode (RADIUS) ;`
(x,y) rectangle's
center.
w half-width (radius).
h half-height (radius).



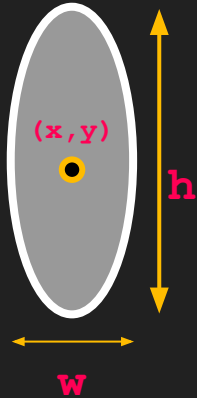
`rectMode (CORNERS) ;`
(x,y) rectangle's
upper left corner.
(w,h) rectangle's
lower right corner.

`ellipseMode (<mode>) ;`

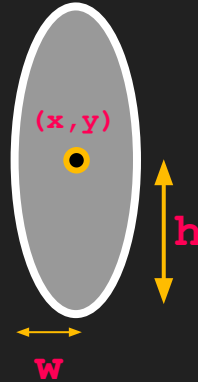
Defines how a ellipse shape `ellipse (x,y,w,h)` should be drawn.



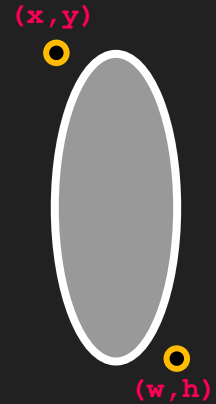
`ellipseMode (CORNER) ;`
 (x, y) ellipse's upper left corner.
 w weight
 h height



`ellipseMode (CENTER) ;`
 (x, y) ellipse's center.
 w weight
 h height



`ellipseMode (RADIUS) ;`
 (x, y) ellipse's center.
 w half-width (radius).
 h half-height (radius).



`ellipseMode (CORNERS) ;`
 (x, y) ellipse's upper left corner.
 (w, h) ellipse's lower right corner.