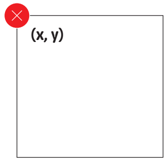
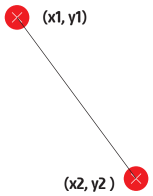
W.01

GRAPHICS PRIMITIVES AND DRAWING

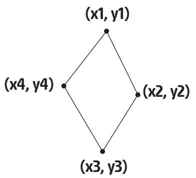


rect(x, y, width, height);
Draws a rectangle anchored at the top left corner, in position (x, y) and with size “width” and “height”.

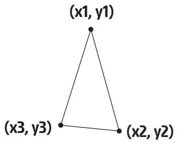
- **rectMode(CORNER)**;
- **rectMode(CENTER)**; (x,y) at the centre
- **rectMode(RADIUS);** “width” and “height” are the radius from the centre at (x,y)



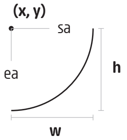
line(x1, y1, x2, y2);
Draws a line from point (x1, y1) to (x2, y2)



quad(x1, y1, x2, y2, x3, y3, x4, y4);
Draws a quadrilateral with the four vertex positions passed to the function.



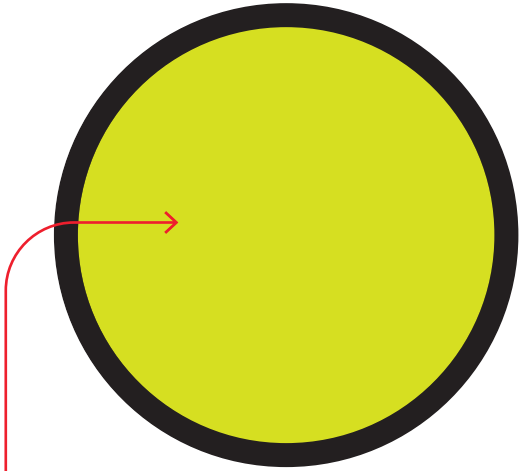
triangle(x1, y1, x2, y2, x3, y3);
Draws a triangle with the three vertex positions passed as arguments.



arc(x, y, w, h, sa, ea);
Draws an arc from position (x,y), with size “w” width, “h” height, “sa” start angle and “ea” end angle passed as radians.

Useful constants in processing:
TWO_PI, **PI**, **HALF_PI**.

Basic geometry
and graphics primitive shapes



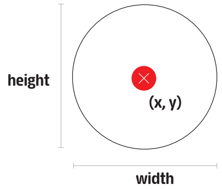
Processing Code

```
stroke(0);

strokeWeight(10);

fill(215,223,35);

ellipse(x,y, 200, 200);
```



ellipse(x, y, width, height);
Draws an ellipse centered at position (x, y) and with size “width” and “height”. Specifying the same values for “width” and “height” makes a circle.

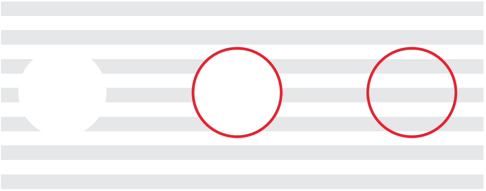
fill(), noFill(), stroke(), noStroke()
Border, stroke & fill setting functions for graphics shapes

fill(red, green, blue) • fill(red,green, blue, alpha)
• fill(grey_level) • fill(grey_level, alpha)

stroke(red, green, blue) • stroke(red,green, blue, alpha)
• stroke(grey_level) • stroke(grey_level, alpha)

* Value scale of red, green, blue, alpha and grey_level ranges from 0 (darkest) to 255 (brightest).

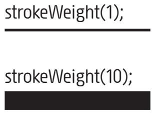
noStroke() and noFill();
Disable stroke and fill color.



fill(255);
noStroke();

fill(255);
stroke(255,0,0);

noFill();
stroke(255,0,0);



strokeWeight();

Sets the width of the stroke used for lines, points, and the border around shapes. All widths are set in units of pixels.

creative coding
MONASH University