

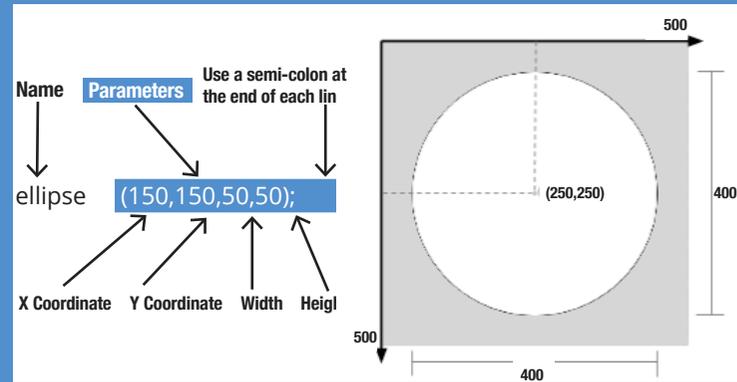


HOW-TO GUIDE

Draw with Programming

How it Works

Each command does something different. Drawing an ellipse is as easy as writing the function name, ellipse, in the editor, and then entering the information in the Parameters.



When writing parameters for an ellipse, follow this order: X Coordinate, Y Coordinate, Width and Height.

The syntax of the function (or the general form) looks like this: ellipse (x,y,width,height);

Example:

size (500,500); sets the size of the canvas to 500 by 500 pixels.



Function calls get executed in order from top to bottom, so if you want a shape to overlap another, you have to draw the topmost shape last.



With an open Processing IDE window, you can start programming visual shapes right away. There are no class structures, no graphics to import, and no playing around with functions, inheritance, or other programming commands.

Use Processing for free at processing.org

Drawing a Face

- 1 Set the size of the screen: size (500,500);
- 2 Draw a circle: ellipse (250,250,400,400);
 Don't forget to add semicolons at the end of each line as you go!
- 3 Draw the rest of the face:
 - a. Make the color of the eyes blue: fill (0,0,255);
 - b. Create the eyes: ellipse (150,150,50,50); ellipse (350,150,50,50);
 - c. Create the mouth: line (150,300,350,300);
 - d. Quick review! Check your work + Click

Type

```
size (500,500);
ellipse (250,250,400,400);
fill (0,0,255);
ellipse (150,150,50,50);
ellipse (350,150,50,50);
line (150,300,350,300);
```

Click



You Should See



The first two parameters of a line command are the starting coordinates of the line, and the second two parameters are the ending coordinates of the line.

Congratulations! You made a simple face.

Challenge! Make Your Face Smile:

- 4 Use an arc function to draw an arc instead of a line: arc (a, b, c, d, start, stop);

Arc Parameters:

- a: X Coordinate of the arc's ellipse
- b: Y Coordinate of the arc's ellipse
- c: Width of the arc's ellipse by default
- d: Height of the arc's ellipse by default
- start: angle to start the arc, specified in radians
- stop: angle to stop the arc, specified in radians

Drawing Reference

Take a look at the reference below for the syntax of many functions, and then try drawing your own face, creature or anything you can think of! Not sure where to start? Try drawing a house.

Setting the screen size	size (horizontal_width, vertical_height);
Create a line	line (x_start, y_start, x_end, y_end);
Create an ellipse	ellipse (x, y, width, height);
Create a rectangle	rect (x, y, width, height);
Create a triangle	triangle (x1, y1, x2, y2, x3, y3);
Set the fill color	fill (red,green,blue);
Set the line color	stroke (red,green,blue);
Set the background color	background (red,green,blue);