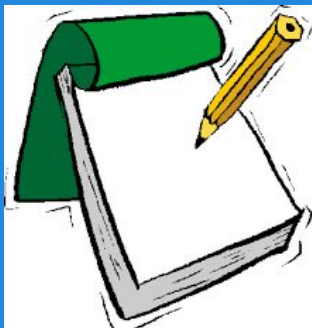


One more day to sit where you like!

Please let me know if you can bring a laptop
- it means you get special seating



Drawing in Javascript



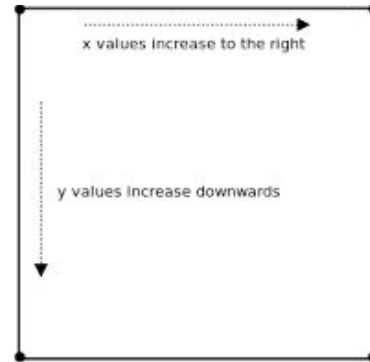
Notes are optional today - copy what you need

Syntax



JavaScript graphics x-y axis

Different from the Algebraic axis. $(0,0)$ is the upper left-hand corner, and $(400,400)$ is the bottom-right corner.

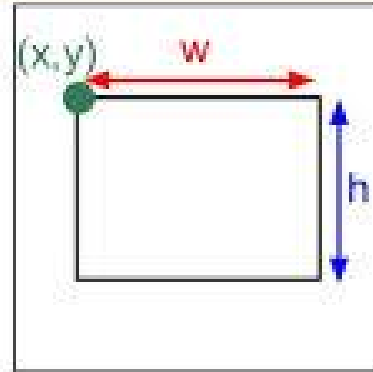


Syntax



rect (x,y,w,h)

A JavaScript function that draws a rectangle whose upper, left corner is at point x,y and has width w and height h .



Syntax



ellipse (x,y,w,h)

A JavaScript function that draws an ellipse whose center is at point x,y and has width w and height h .

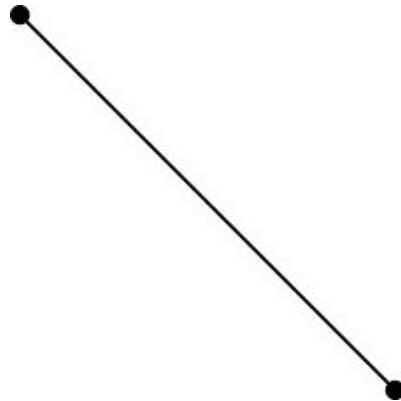


Syntax



line (x1,y1,x2, y2)

A JavaScript function that draws a line that connects point (x1,y1) to point (x2,y2)



Programming Example



```
rect(20, 14, 80, 120);  
ellipse (150, 150, 100, 100);  
line(60, 70, 160, 170);
```

//This code will draw one rectangle, one ellipse,
and one line.

//Two foreslashes indicate a comment

Syntax



fill(x,y,z)

A JavaScript function that chooses a color. Anything drawn after “fill” is called will be drawn in that color until a new “fill” is called. Each permutation of x,y,z represents a different color.

Syntax



background(x,y,z)

A JavaScript function that is similar to “fill.” It will choose a color then use it to paint the background of your picture.

Syntax



noStroke();

A JavaScript function that tells the computer not to include the outline around shapes when it draws them.

Programming Example



```
noStroke();  
background(51, 0, 255);  
fill(78, 224, 107);  
rect(0, 300, 400, 100);
```

//This will make a green rectangle on a blue background with no outlines

Syntax



Documentation

- When a Computer Language is written, the authors create common functions and classes that programmers will want to use regularly. The authors then create a library to help programmers understand those functions.

Syntax



JavaScript Documentation Pad

Khan Academy's method to allow programmers access to the JavaScript Documentation. It allows the user to select a JavaScript function, or to double click for extra help. It is located underneath the coding window.



Syntax



Placeholder Parameters

When you select a function from the Documentation Pad, it will begin with placeholder parameters. They are just ideas, variables without value. You must put in concrete values before the function can run.

Example:

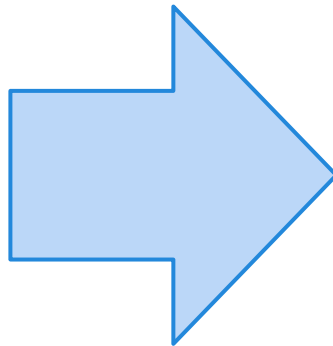
rect (x,y,h,w): h is a placeholder parameter for the height of a rectangle. You must assign a number value.

Programming Example



(Don't copy)

If I double-click on
ellipse(x,y,w,h) in the Doc pad,
I get this explanation:



Draws an ellipse, using the first two parameters as the center coordinates and the last two as the width/height. For alternate ways to position, see [ellipseMode](#).

x the x-coordinate of the center

y the y-coordinate of the center

width the width of the ellipse

height the height of the ellipse

First Assignment

Draw A Pokemon!

- 1) Log into KA Intro to JS
- 2) Choose "+ New Program"
- 3) Call it by the Pokemon's name
- 4) Search online for a picture to copy
- 5) Full details on my website: AP Java calendar for today



Homework!

Finish your Pokemon

It must use variables for positioning

