1/20/22, 12:19 PM p5.js Cheat Sheet

p5.js

a cheat sheet for beginners!

program structure

```
//runs once when program starts
function setup(){
 createCanvas(800,600); //width,height in pixels
//run continuously after setup
function draw(){
  //rendering loop
```

system variables

```
windowWidth / windowHeight
//width / height of window
width / height
//width / height of canvas
mouseX / mouseY
//current horizontal / vertical mouse position
```

non-visual feedback

```
print();
//report data to the output console
//double slash to comment code (program skips it)
```

color

```
fill(120); //gray: 0-255
fill(100,125,255); //r, g, b: 0-255
fill(255, 0, 0, 50); //r, q, b, alpha
fill('red'); //color string
fill('#ccc'); //3-digit hex
fill('#222222'); //6-digit hex fill
color(0, 0, 255); //p5.Color object
```

math

```
+ - / * //basic math operators
random(low,high); //ranged random number
map(value, in1, in2, out1, out2);
//map a value from input range to output range
2d primitives
```

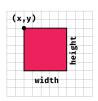
```
line(x1, y1, x2, y2);
ellipse(x, y, width, height);
rect(x, y, width, height);
arc(x, y, width, height, start, stop);
beginShape();
 vertex(x1, y1);
 vertex(x2, y2);
 vertex(x3, y3);
  //add more vertex
endShape(CLOSE);
text("string", x, y, boxwidth, boxheight);
```

grid system line()





rect()



arc()



vertex()

ellipse()



width

attributes

```
background(color);
//set the background color
fill(color);
//set the fill color
noFill();
//disables fill
stroke(color);
//set the stroke color
strokeWeight(weight);
//set the stroke's width in pixels
noStroke();
//disables stroke
ellipseMode(MODE);
rectMode(MODE);
//CENTER, CORNER
textSize(pixels);
```

if/then logic

```
if(test){
  //statements
=== //equal to
!= //not equal
   //greater than
    //less than
>= //greater than or equal
<= //less than or equal
                         false
                test
                  true
              statements
            continue program
```

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