Shapes

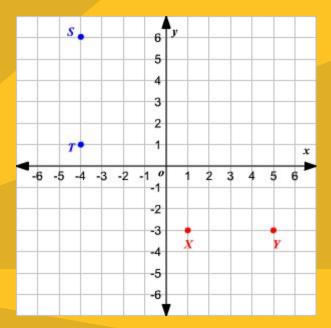
LO IWBAT Design background canvases on P5 editor in a variety of sizes.

Learning Objectives:

<u>To:</u>

- Grow in my understanding the basic structure of p5.js
- Design shapes on P5 editor in a variety of sizes.
- Input a variety of shapes to the background.
- Write lines of code (arguments) to reflect goals 2&3.



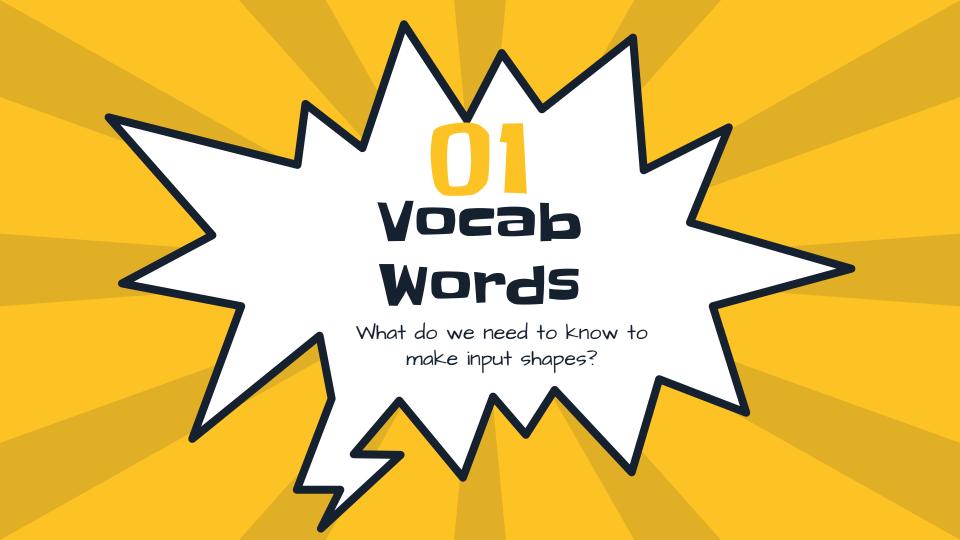


What's needed to Create shapes?



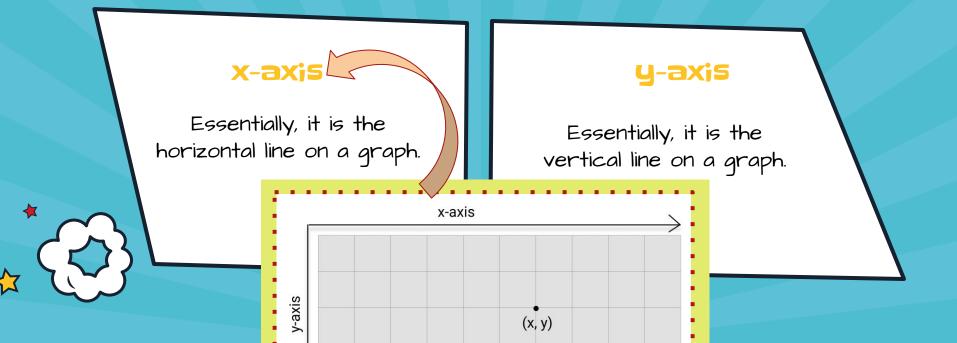
Line of code/ Syntax Function/Command() { Argument/parameters); }





What's needed to Create shapes?











X- & y- axis

Lines on a graph

What's the Function?

stroke() is the color of the point.

strokeWeight() size of the point. (thickness(

color/stroke()

Use grayscale values (v)

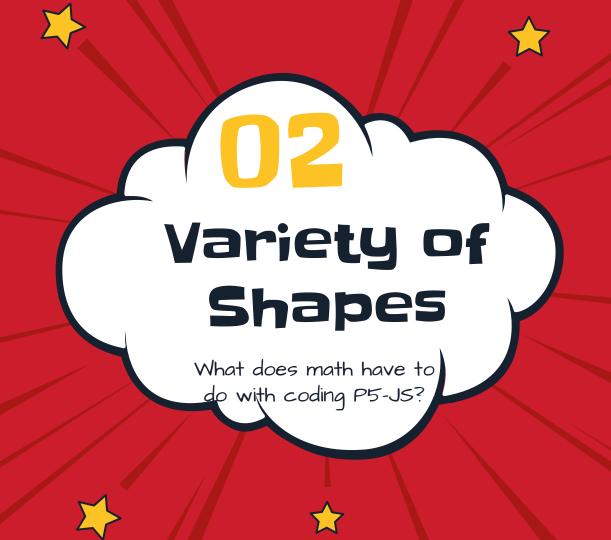
Use RGB values (v, v, v)

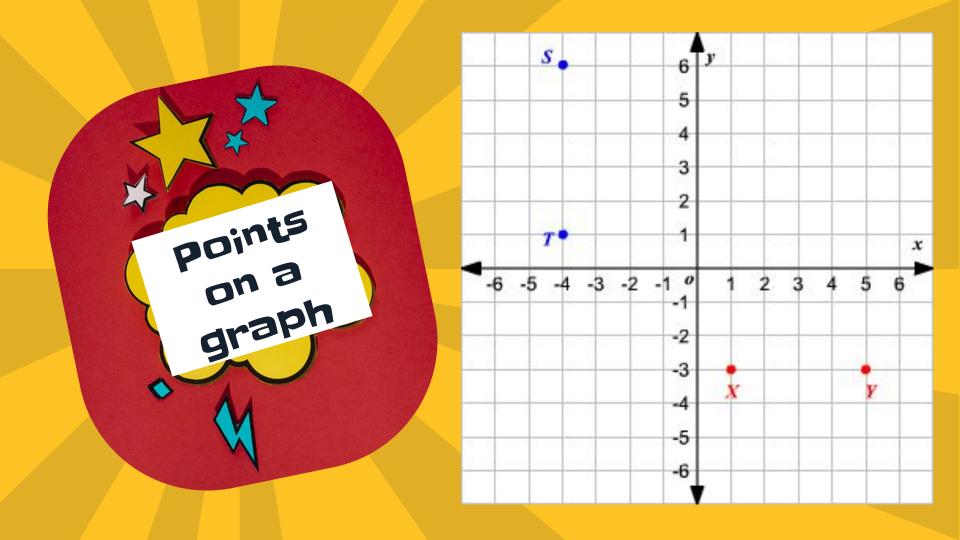
SVG & CSS colors ('color')





V= value

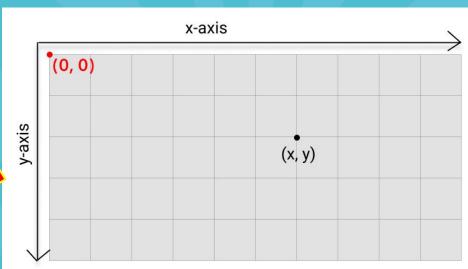




Point (v, v)

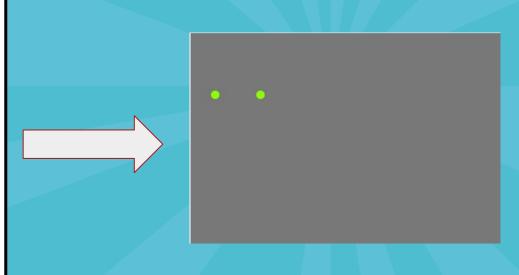
point(85, 75);

(x, y)



Point (v, v)

```
function setup() {
 createCanvas(400, 400);
function draw() {
 background(120); optional
 point(85, 75);
  point(30, 75); optional
 stroke('greenyellow');
strokeWeight(10);
```





With your partner:

Plot the following on a 400,400 canvas: point(24, 58) point(100, 200) Point closest to the:

■ Center

■ bottom right

■ Bottom left

Top rightTop left

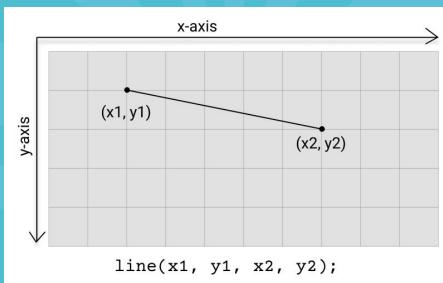




line (v, v, v, v)

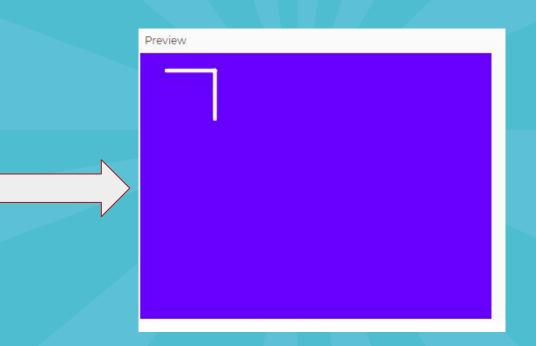


Syntax line(x1, y1, x2, y2)



line (v, v, v, v)

```
function setup() {
 createCanvas(400, 400);
function draw() {
 background('blue');
 line(30, 20, 85, 20);
 stroke(255);
 line(85, 20, 85, 75);
 stroke(255);
strokeWeight(5);
```





With your partner:

Plot the following on a 400,400 canvas:

line(85, 75, 30, 75) line(-30, -20, 85, 20) line(30, 20, 85, 75)

Line closest to the:

- Center
- bottom right
- Bottom left
- Top right
- Top left
- Combine lines



circle (x, y, d)

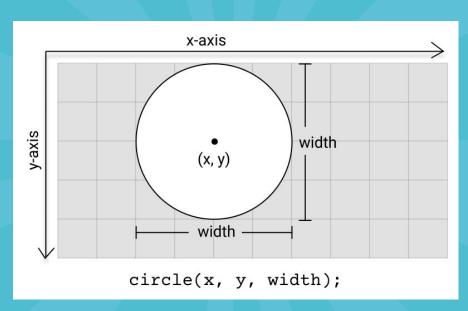
circle(30, 30, 20);

Syntax

circle(x, y, d)

x-axis, y-axis, [location]

Diameter [width/height of circle]



circle (v, v, v)

```
function setup() {
 createCanvas(400, 400);
function draw() {
 background(220);
 circle(130, 75, 130);
 stroke('red');
```



With your partner:

Plot the following on a 400,400 canvas: circle(30, 30, 20) circle(130, 75, 130) circle closest to the:

- Center
- bottom right
- Bottom left
- Top right
- Top left
- Combined circles





Let's Try it OUt

Task 1: With your partner, Use slides 12-14 and the <u>editor here</u> to complete slide 21.

Task 2: With your partner, Use slides 15-17 and the <u>editor here</u> to complete slide 22.

Task 1: With your partner, Use slides 18-20 and the <u>editor here</u> to complete slide 22.



Bonus: Use your knowledge of lines to create a rectangle. Use Use all the shapes to create a picture.

Task 1: Points

Task 1: With your partner, create points as specified in Slide 12. Input values into the <u>P5-editor link</u> to verify.

		Value	Value
Shape	-	255	153
	2	#	#
	3	#	#
	4	#	#
	5	#	#
	6	#	#

Task 2: Lines

Task 2: With your partner, create lines as specified on Slide 15.
Input values into the <u>P5-editor link</u> to verify.

		Value	Value	Value	Value
Shape	1	255	153		
	2	#	#	#	#
	3	#	#	#	#
	4	#	#	#	#
	5	#	#	#	#
	6	#	#	#	#

Task 3 Circles:

Task 3: With your partner, create circles as specified on Slide 15. Input values into the <u>P5-editor link</u> to verify.

		Value	Value	Value
Shape	1	255	153	204
	2	#	#	#
	3	#	#	#
	4	#	#	#
	5	#	#	#
	6			