

Intro to p5.js

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What is p5.js?

p5.js is a **JavaScript**
library for developing
creative coding
projects.

A JavaScript library
is a collection of prewritten
code snippets that can be
used and reused in developing
coding projects.

Coding projects using **p5.js can be**

Art projects

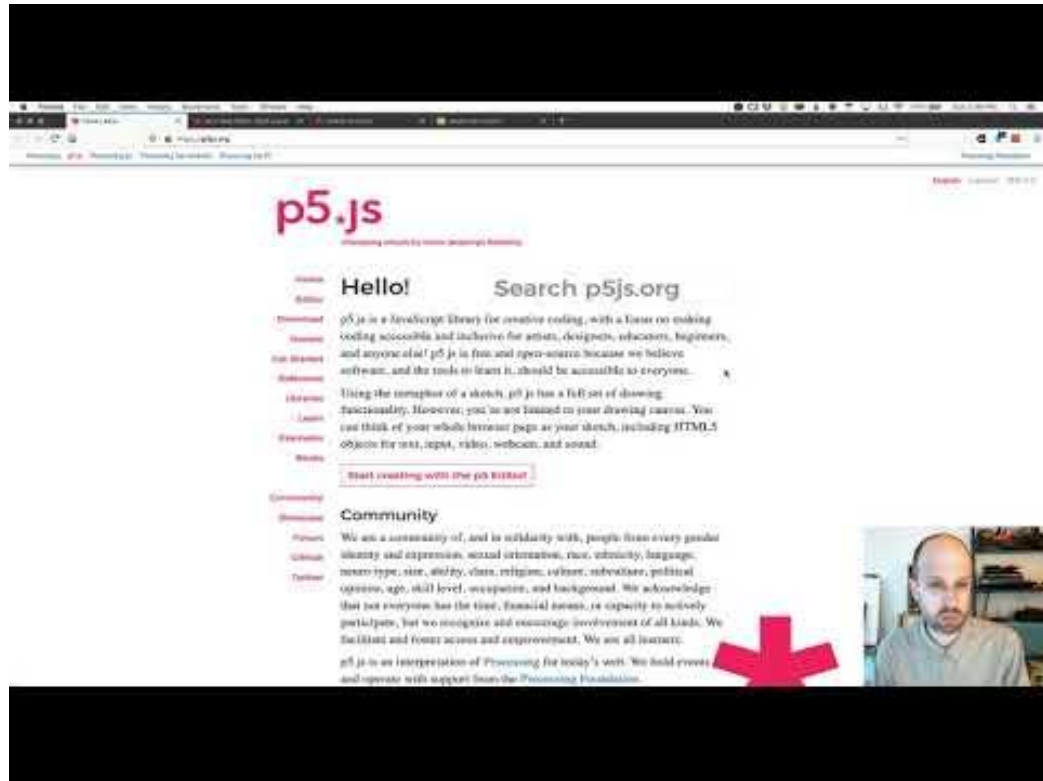
Animation Projects

Digital Story Projects

Game Projects

& many others

Coding with **p5.js** video...



**Let's get started
with p5.js !**

STEP 1

Open your **p5.js** editor

Go to <https://p5js.org/>

then

select **Editor**



p5.js

Home
Editor
Download
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Get Started
Reference
Libraries
Learn
Teach
Examples

Hello!

p5.js is a JavaScript library for creative coding, with a focus on making coding accessible and inclusive for artists, designers, educators, beginners, and anyone else! p5.js is free and open-source because we believe software, and the tools to learn it, should be accessible to everyone.

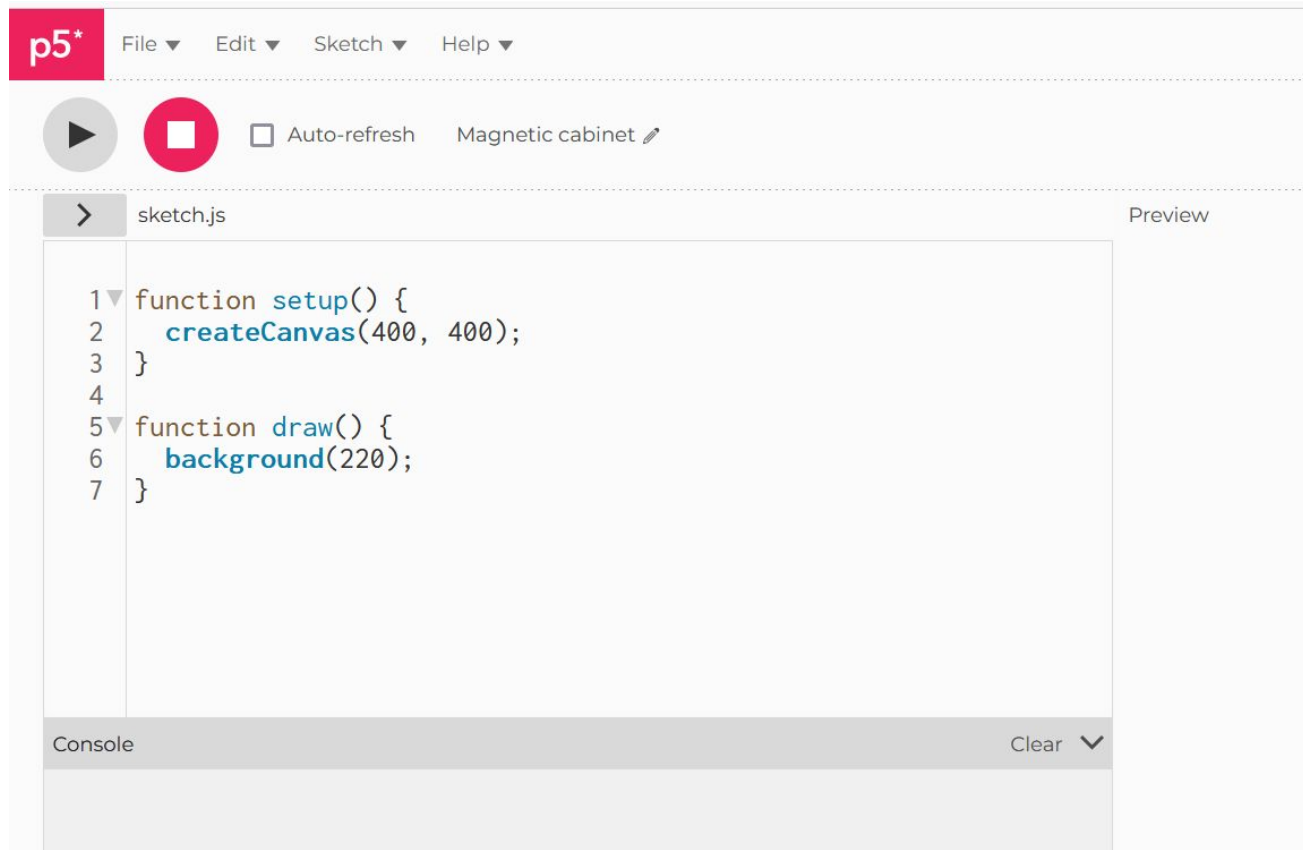
Using the metaphor of a sketch, p5.js has a full set of drawing functionality. However, you're not limited to your drawing canvas. You can think of your whole browser page as your sketch, including HTML5 objects for text, input, video, webcam, and sound.

[Join the p5.js Discord!](#)

<https://www.youtube.com/watch?v=feGdJFh02YQ&t=63s>

STEP 2

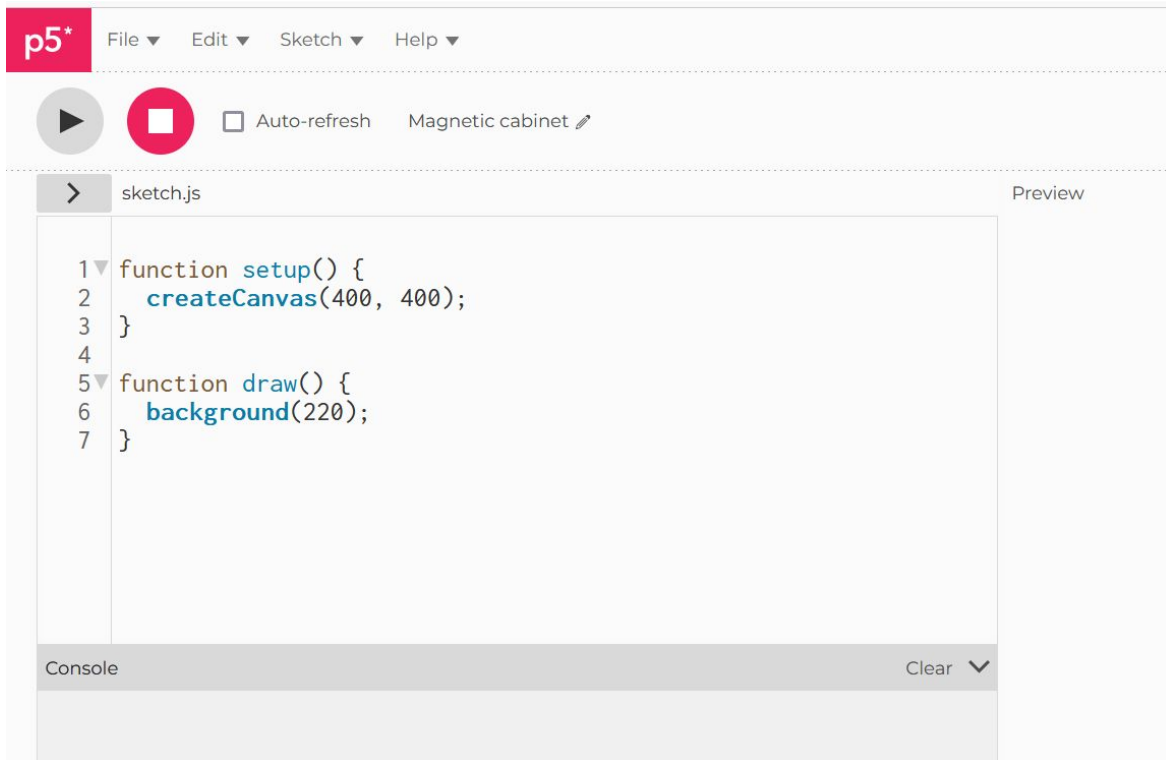
Learn
the **p5.js**
interface



TERMS

TOOLBAR

- File
- Edit
- Sketch
- Help



TERMS

ICONS

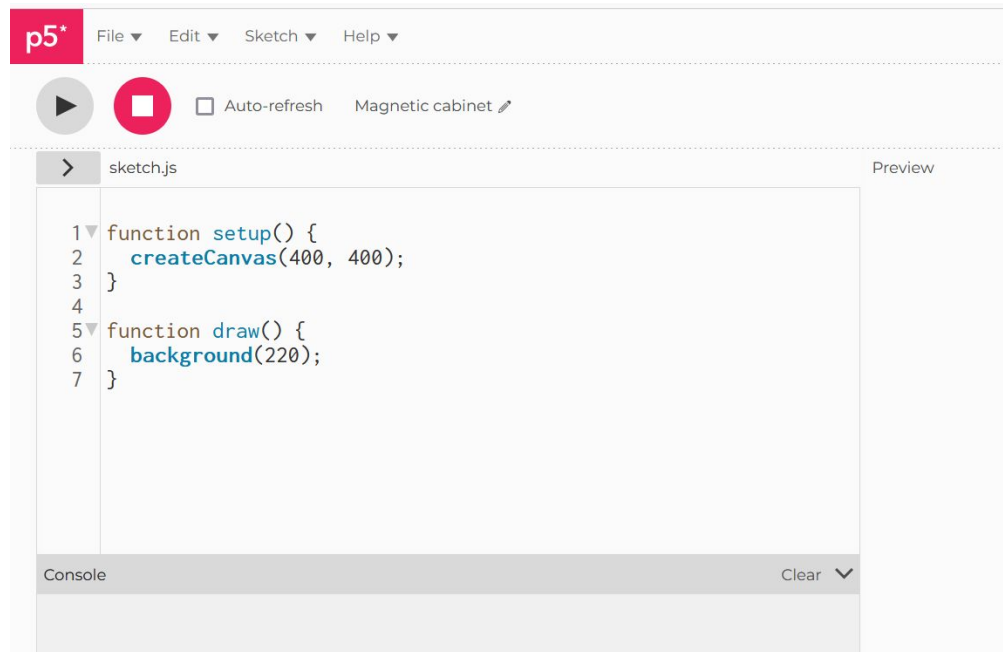
Play



Stop



File Tree



TERMS

WORKSPACES



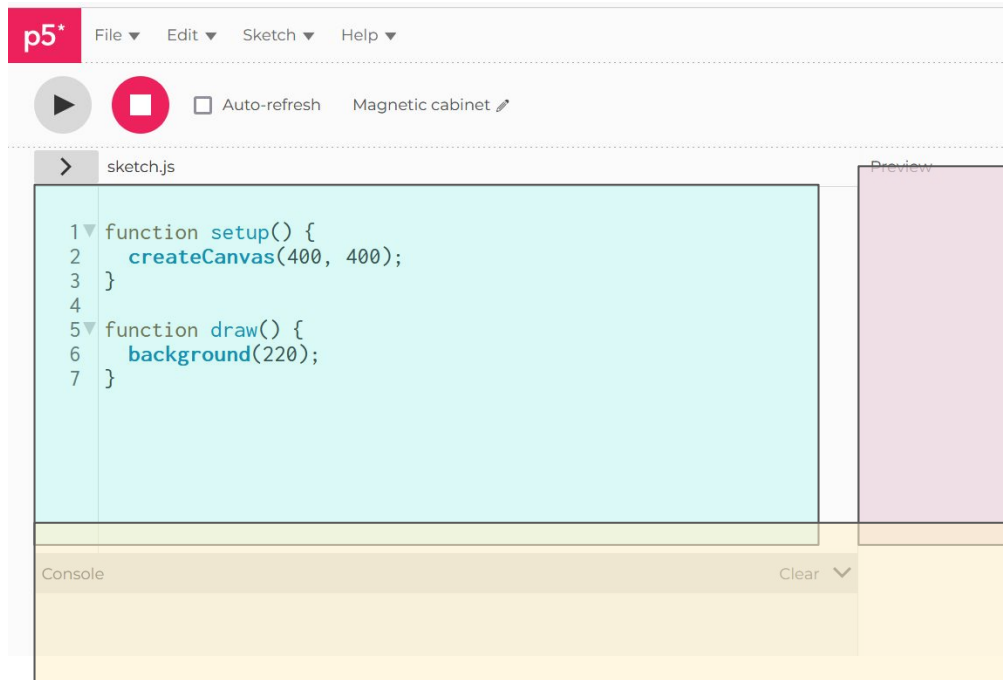
Code Space



Preview Space



Console



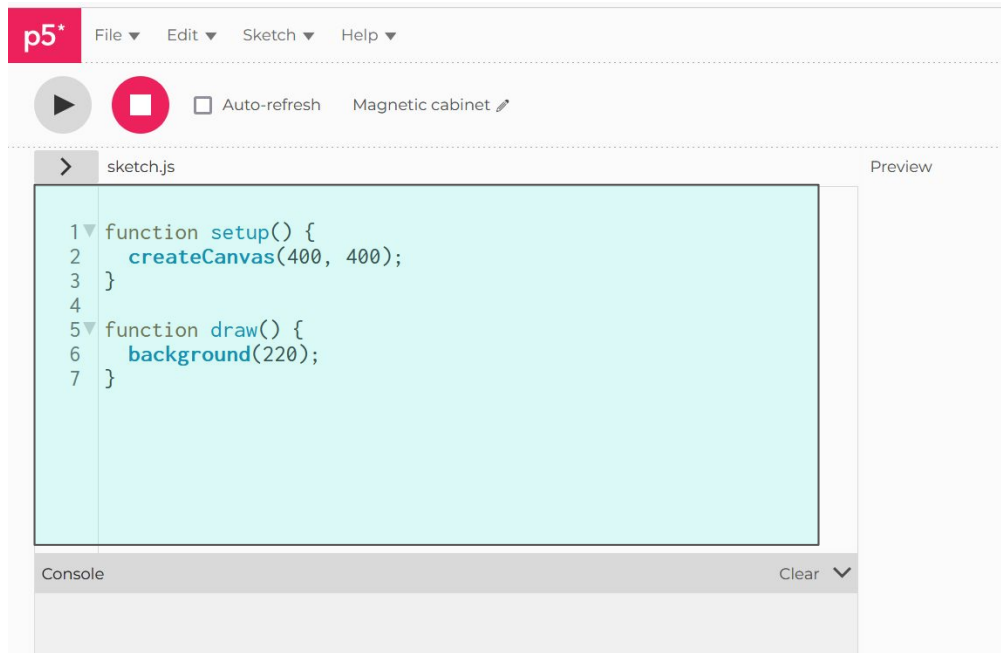
TERMS

WORKSPACES



Code Space

Where I will **type**,
build/develop and
debug my (p5.js, HTML
and or CSS) **code**.

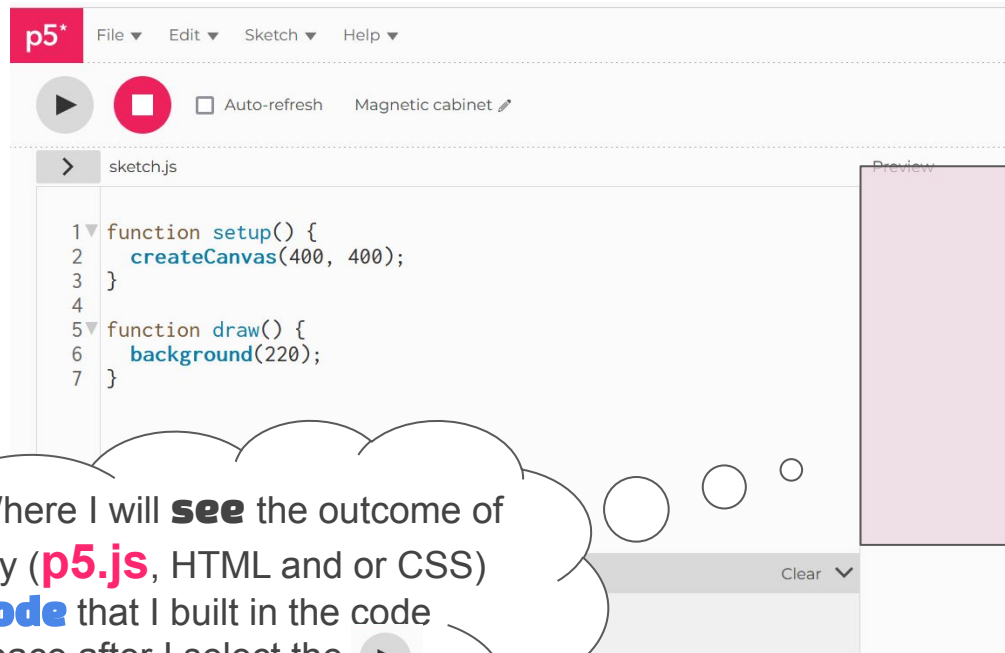


TERMS

WORKSPACES



Preview Space



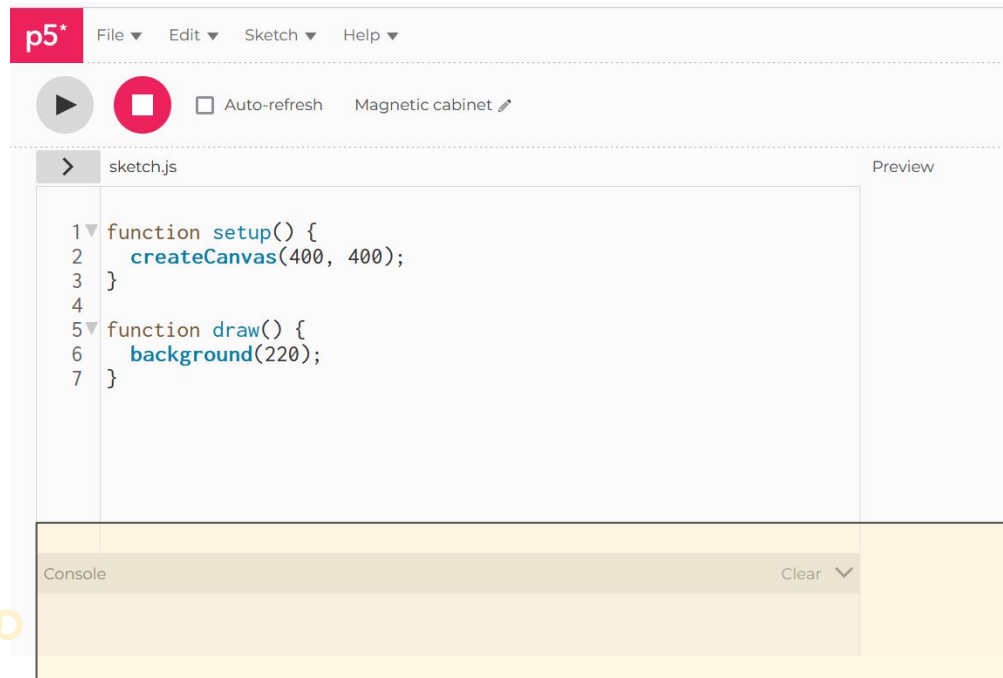
Where I will **see** the outcome of my (**p5.js**, HTML and or CSS) **code** that I built in the code space after I select the **button**.

TERMS

WORKSPACES

Console

Where I will **see error messages** to guide debugging efforts in my (p5.js, HTML and or CSS) **code** after I select the **button**.



STEP 3

Let's get coding with
p5.js

p5.js

(Open Parenthesis

) Closed Parenthesis

, Comma

/ Forward slash

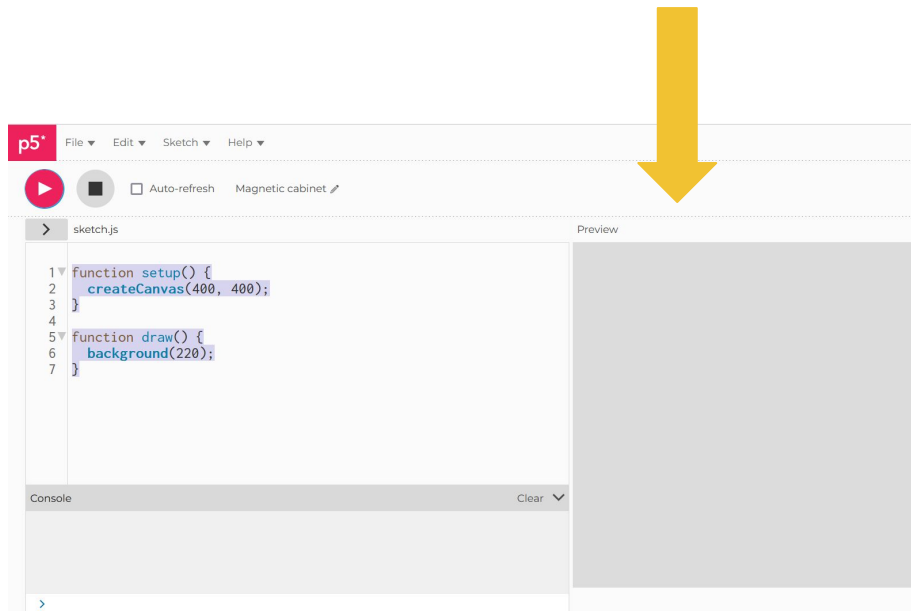
; Semicolon

{ Open Curly Brace

} Closed Curly Brace

p5.js: CREATING A CANVAS

```
1. function setup() {  
2.   createCanvas(400, 400);  
3. }  
4.  
5. function draw() {  
6.   background(220);  
7. }
```



QUESTION: What do you notice?

p5.js: CREATING COMMENTS

Two forward slashes Include your comment

EXAMPLES

// I created a comment to help keep track/define

// or add notes about the code to help in debugging

TIPS:

- **Auto Save**
- Comment your code
- **Debug**
- Duplicate
- **Take an (i) break**
- Get a second look aka collaborate!
- **Have fun superstar!**

PROJECT 1:

Creating shapes

PROJECT 1 TERMS:

```
function setup()  
  createCanvas(____, ____)
```

```
function draw()  
  background(____)
```

```
  ellipse(____,____,____,____)
```

PROJECT 1 CODE SNIPPET:

LOCATION
of the SHAPE
On the CANVAS

DIMENSIONS
(**WIDTH & HEIGHT**)
Of SHAPE CREATED

```
ellipse (100, 100, 50, 50) ;
```

EXPLANATION:

This line of code creates an ellipse, with its center 100 pixels over from the left and 100 pixels down from the top, with a width and height of 50 pixels.

SAMPLE PROJECT 1 CODE:

```
1. function setup() {  
2.   createCanvas(400, 400);  
3. }  
4.  
5. function draw() {  
6.   background(5);  
7.   ellipse(150,150,170,80);  
8. }
```

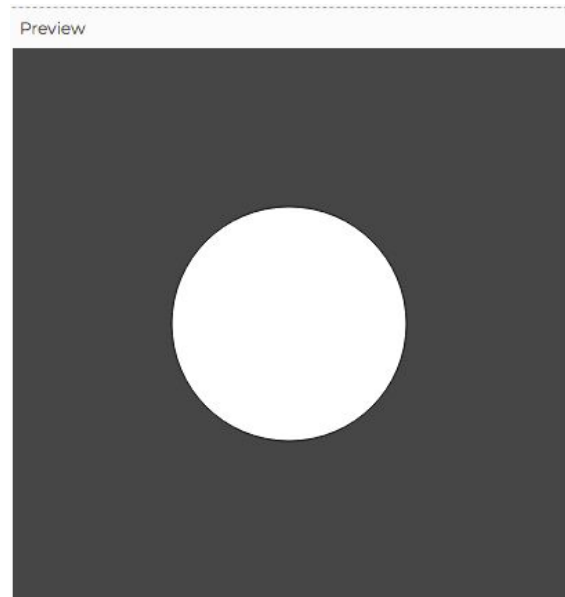


DEBUGGING TIPS/CHALLENGE PROJECT 1:

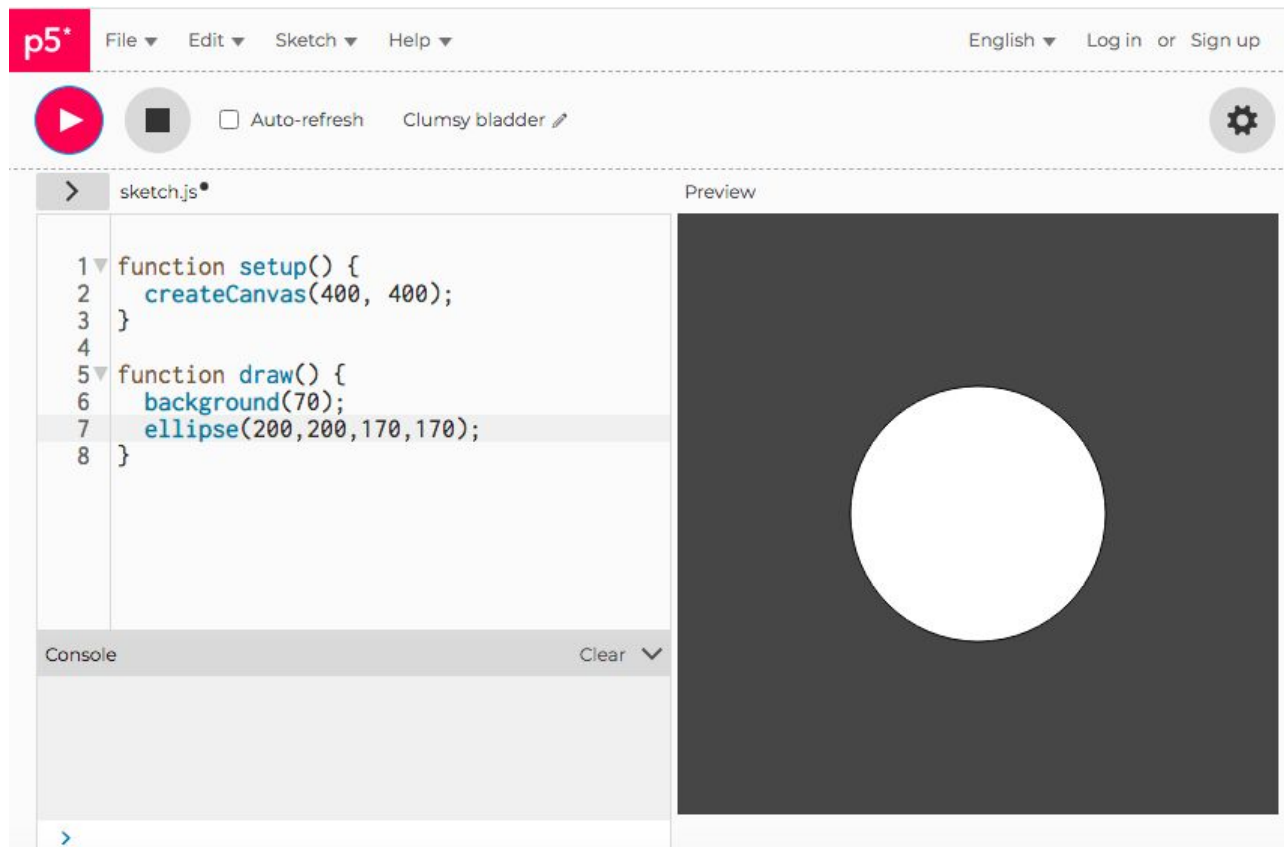
QUESTION:

How can the following snippet of code be debugged to create the following image in the preview workspace?

```
1. function setup() {  
2. createCanvas(400, 400);  
3. }  
4.  
5. function draw() {  
6. background(70);  
7. ellipse(150,150,170,80);  
8. }
```



DEBUGGING TIPS/CHALLENGE PROJECT 1 SOLUTION:



PROJECT 1 CODE SNIPPET:

LOCATION
of the SHAPE
On the CANVAS

DIMENSIONS
(**WIDTH & HEIGHT**)
Of SHAPE CREATED

```
square(150, 250, 100)
```

EXPLANATION:

A square at location (150, 25) with a side size of 100.

SAMPLE PROJECT 1 CODE:

```
1. function setup() {  
2.   createCanvas(400, 400);  
3. }  
4.  
5. function draw() {  
6.   background(70);  
7.   square(150, 250, 100);  
8. }
```

