

Background and Color

4 min


Let's add some color to our drawings!

We use the `background()` function to fill the p5.js canvas with a solid color. We previously used it when we looked at the `setup()` function in the [Introduction to Creative Coding with p5.js](#) lesson. The `background()` function can be used in the `setup()` function to set the initial color of the canvas when the sketch begins.

The `background()` function can also be called in the `draw()` loop to clear the canvas at the beginning of each frame, which is useful for creating animations that will be introduced in a later lesson.


The `background()` function takes a color as an [argument](#) and the p5.js library allows many ways to specify color.

- You can provide a grayscale integer value between 0 and 255, with 0 being pure black and 255 pure white.



```
// Grayscale Integer Value  
background(50);
```

- You can also specify color in RGB (Red, Green, Blue) notation which uses three integers between 0 and 255, with 255 being fully saturated.



```
// R, G, B Integer Value  
background(249, 102, 255);
```

- [Named CSS color keywords](#) are also valid color values given as a [string](#).



```
// Named SVG/CSS color string
```

```
background( 'DodgerBlue' );
```

- Both three-digit and six-digit [hexadecimal](#) color codes can also be used like below.



```
// Hexadecimal Integer Value
```

```
background( '#FF8C00' );
```

- Alpha (transparency) value can be added for grayscale and RGB color notations as an additional argument.



```
// Gray Integer Value with Alpha
```

```
background(50, 127);
```



```
// RGB Integer Value with Alpha
```

```
background(50, 70, 100, 100);
```

There are more ways to represent colors which can be found on the [p5.js reference](#).

Instructions

1.

Remember that the initial background of a p5.js sketch can be set by calling the `background()` function in the `setup()` function.

Set the initial background color of the sketch to the gray value of 127.

Hint

To specify a gray value for the background, the `background()` function can be written like below:

```
background(grayValue);
```

2.

You can clear the background of each draw loop by calling the `background()` function within the `draw()` function. Add a green background using the RGB notation to the `draw()` function.

Keep the `background()` function that you added in the previous step in the `setup()` function.

Hint

To specify a RGB value for the background, the `background()` function can be written like below:

```
background(redValue, greenValue, blueValue);
```

Remember that the minimum value of red, green, and blue values of the RGB notation is 0, and the maximum is 255.

sketch.js

```
function setup() {  
  createCanvas(400, 400);  
  // TODO: Set background color to gray value of 127  
  background(127);  
}  
  
function draw() {  
  // TODO: Set background color to green using RGB notation  
  background(0, 255, 0)  
}
```

