

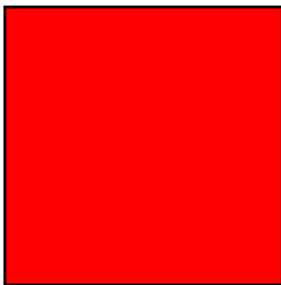
fill() and noFill()

6 min

Let's add color to our shapes!

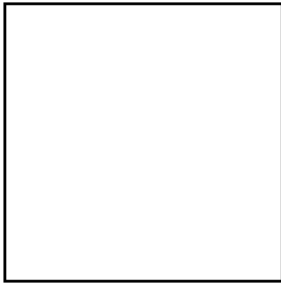
The first style function for shapes you should know is the `fill()` function. `fill()` allows us to set the fill color, or the inside color of a shape. The default fill color for shapes is white and all shapes, except for points and line, have a fill. The `fill()` function must be called prior to calling the shape function.

We can set the fill color of shapes by calling the `fill()` function and passing color arguments like for the `background()` function. This will set the active fill color until the `fill()` function is called again with a different color [argument](#).



```
fill('red');  
rect(width/2, height/2, 100);
```

To disable the fill of a shape and make the fill transparent, you can call the `noFill()` function.



```
noFill();  
rect(width/2, height/2, 100);
```

Instructions

1.

In the p5.js sketch to the right, set the top-left circle's fill to blue using the RGB notation by calling the `fill()` function before it is drawn.

Hint

You can call the `fill()` function with RGB values like below:

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

2.

Set the top-right rectangle's fill to black and with an alpha value of 40.

Hint

You can call the `fill()` function with a gray value (between 0 and 255) and provide an additional argument for opacity (alpha) like this:

```
fill(grayValue, alphaValue);
```

3.

Next, set the bottom-left triangle to 'purple' with the `fill()` function.

Hint

You can call the `fill()` function with a named color value like this:

```
fill('magenta');
```

4.

Set the bottom-right circle to transparent using the `noFill()` function.

Hint

You can call the `noFill()` function to disable the fill setting. It must be called before a drawing function.

sketch.js

```
let shapeWidth = 100;

function setup() {
  createCanvas(400, 400);
}

function draw() {
  background(200);

  // TODO: Set the top-left circle fill to rgb blue
  fill(0, 0, 255);
  circle(width/2 - shapeWidth,
        shapeWidth,
        shapeWidth);

  // TODO: Set the top-right rectangle fill to black with alpha level of 40
  fill(0, 40);
  square(width/2 + shapeWidth/2,
        shapeWidth/2,
        shapeWidth);

  // TODO: Set the bottom-left triangle to 'purple'
  fill('purple');
  triangle(shapeWidth/2,
        height/2 + shapeWidth/2,
        shapeWidth/2, height - shapeWidth/2,
        width/2 - shapeWidth/2,
        height/2 + shapeWidth/2);

  // TODO: Set the bottom-right circle to transparent
  noFill();
  circle(width/2 + shapeWidth,
        height/2 + shapeWidth,
        shapeWidth);
}
```

