

setHeading()

Rotates a 2D vector to a specific angle without changing its magnitude.

By convention, the positive x-axis has an angle of 0. Angles increase in the clockwise direction.

If the vector was created with `createVector()`, `setHeading()` uses the units of the current `angleMode()`.

Examples

```
function setup() {
  // Create a p5.Vector object.
  let v = createVector(0, 1);

  // Prints "1.570..." to the console.
  print(v.heading());

  // Point to the left.
  v.setHeading(PI);

  // Prints "3.141..." to the console.
  print(v.heading());
}
```

```
function setup() {
  // Use degrees.
  angleMode(DEGREES);

  // Create a p5.Vector object.
  let v = createVector(0, 1);

  // Prints "90" to the console.
  print(v.heading());

  // Point to the left.
  v.setHeading(180);

  // Prints "180" to the console.
  print(v.heading());
}
```

```
function setup() {
  createCanvas(100, 100);

  describe('Two arrows extend from the center of a gray square. The red arrow points to the right and the blue arrow points down.');
}

function draw() {
  background(200);

  // Create p5.Vector objects.
  let v0 = createVector(50, 50);
  let v1 = createVector(30, 0);

  // Draw the red arrow.
  drawArrow(v0, v1, 'red');

  // Point down.
  v1.setHeading(HALF_PI);

  // Draw the blue arrow.
  drawArrow(v0, v1, 'blue');
}

// Draws an arrow between two vectors.
function drawArrow(base, vec, myColor) {
  push();
  stroke(myColor);
  strokeWeight(3);
  fill(myColor);
  translate(base.x, base.y);
```

Syntax

`setHeading(angle)`

Parameters

`angle` Number: angle of rotation.

This page is generated from the comments in [src/math/p5.Vector.js](#). Please feel free to edit it and submit a pull request!

Related References

[add](#)
Adds to a vector's x, y, and z components.

[angleBetween](#)
Calculates the angle between two vectors.

[array](#)
Returns the vector's components as an array of numbers.

[clampToZero](#)
Replaces the components of a p5.Vector that are very close to zero with zero.

