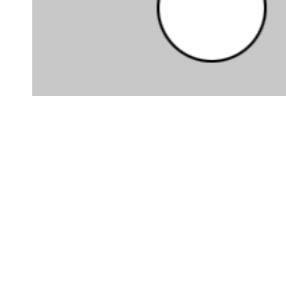


sqrt()

Calculates the square root of a number.

A number's square root can be multiplied by itself to produce the original number. For example, `sqrt(9)` returns 3 because $3 \times 3 = 9$. `sqrt()` always returns a positive value. `sqrt()` doesn't work with negative arguments such as `sqrt(-9)`.

Examples



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

  background(200);

  // Top-left.
  let d = sqrt(16);
  circle(33, 33, d);

  // Bottom-right.
  d = sqrt(1600);
  circle(67, 67, d);

  describe('Two white circles. The circle at the top-left is small. The circle at the bottom-right is ten times larger.');
}
```



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

  background(200);

  describe('A series of black dots that get higher slowly from left to right.');
}

function draw() {
  // Invert the y-axis.
  scale(1, -1);
  translate(0, -100);

  // Calculate the coordinates.
  let x = frameCount;
  let y = 5 * sqrt(x);

  // Draw the point.
  point(x, y);
}
```

Syntax

`sqrt(n)`



Parameters

`n` Number: non-negative number to square root.

Returns

Number: square root of number.

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

Related References

[abs](#)

Calculates the absolute value of a number.

[ceil](#)

Calculates the closest integer value that is greater than or equal to a number.

[constrain](#)

Constrains a number between a minimum and maximum value.

[dist](#)

Calculates the distance between two points.

