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 × 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.

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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.