dist()

Calculates the distance between two points.

The version of `dist()` with four parameters calculates distance in two dimensions.

The version of `dist()` with six parameters calculates distance in three dimensions.

Use p5.Vector.dist() to calculate the distance between two p5.Vector objects.

Examples


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

  background(200);

  // Set the coordinates.
  let x1 = 10;
  let y1 = 50;
  let x2 = 90;
  let y2 = 50;

  // Draw the points and a line connecting them.
  line(x1, y1, x2, y2);
  strokeWeight(5);
  point(x1, y1);
  point(x2, y2);

  // Calculate the distance.
  let d = dist(x1, y1, x2, y2);

  // Style the text.
  textAlign(CENTER);
  textSize(16);

  // Display the distance.
  text(d, 43, 40);

  describe('Two dots connected by a horizontal line. The
number 80 is written above the center of the line.');
}
```

Syntax

```
dist(x1, y1, x2, y2)
```

```
dist(x1, y1, z1, x2, y2, z2)
```

Parameters

x1	Number: x-coordinate of the first point.
y1	Number: y-coordinate of the first point.
x2	Number: x-coordinate of the second point.
y2	Number: y-coordinate of the second point.
z1	Number: z-coordinate of the first point.
z2	Number: z-coordinate of the second point.

Returns

Number: distance between the two points.

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.