

Reference > dist()

dist()

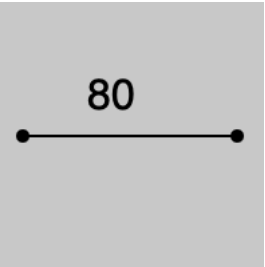
Calculates the distance between two points.

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.
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p5.js

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