

Reference > quad()

# quad()

Draws a quadrilateral (four-sided shape).

Quadrilaterals include rectangles, squares, rhombuses, and trapezoids. The first pair of parameters (x1, y1) sets the quad's first point. The next three pairs of parameters set the coordinates for its next three points (x2, y2), (x3, y3), and (x4, y4). Points should be added in either clockwise or counter-clockwise order.

The version of quad() with twelve parameters allows the quad to be drawn in 3D space. Doing so requires adding the WEBGL argument to createCanvas().

The thirteenth and fourteenth parameters are optional. In WebGL mode, they set the number of segments used to draw the quadrilateral in the x- and y-directions. They're both 2 by default.

## Examples

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

  background(200);

  quad(20, 20, 80, 20, 80, 80, 20, 80);

  describe('A white square with a black outline drawn on a gray canvas.');
```

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

  background(200);

  quad(20, 30, 80, 30, 80, 70, 20, 70);

  describe('A white rectangle with a black outline drawn on a gray canvas.');
```

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

  background(200);

  quad(50, 62, 86, 50, 50, 38, 14, 50);

  describe('A white rhombus with a black outline drawn on a gray canvas.');
```

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

  background(200);

  quad(20, 50, 80, 30, 80, 70, 20, 70);

  describe('A white trapezoid with a black outline drawn on a gray canvas.');
```

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

  background(200);

  quad(-30, -30, 30, -30, 30, 30, -30, 30);

  describe('A white square with a black outline drawn on a gray canvas.');
```

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

  describe('A wavy white surface spins around on gray canvas.');
```

```
function draw() {
  background(200);

  // Rotate around the y-axis.
  rotateY(frameCount * 0.01);

  // Draw the quad.
  quad(-30, -30, 0, 30, -30, 0, 30, 30, 20, -30, 30, -20);
}
```

## Syntax

```
quad(x1, y1, x2, y2, x3, y3, x4, y4, [detailX], [detailY])
```

```
quad(x1, y1, z1, x2, y2, z2, x3, y3, z3, x4, y4, z4, [detailX], [detailY])
```

## Parameters

x1	Number: the x-coordinate of the first point.
y1	Number: the y-coordinate of the first point.
x2	Number: the x-coordinate of the second point.
y2	Number: the y-coordinate of the second point.
x3	Number: the x-coordinate of the third point.
y3	Number: the y-coordinate of the third point.
x4	Number: the x-coordinate of the fourth point.
y4	Number: the y-coordinate of the fourth point.
detailX	Integer: number of segments in the x-direction.
detailY	Integer: number of segments in the y-direction.
z1	Number: the z-coordinate of the first point.
z2	Number: the z-coordinate of the second point.
z3	Number: the z-coordinate of the third point.
z4	Number: the z-coordinate of the fourth point.

This page is generated from the comments in [src/core/shape/2d\\_primitives.js](#). Please feel free to edit it and submit a pull request!

## Related References

<b>arc</b> Draws an arc.	<b>circle</b> Draws a circle.	<b>ellipse</b> Draws an ellipse (oval).	<b>line</b> Draws a straight line between two points.
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