

# **riemann**

v0.1.0

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<https://github.com/ThatOneCalculator/riemann-sum-typst-cetz>

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## **ABSTRACT**

A package to draw Riemann sums (and their plots) of a function with CeTZ.

## Riemann

- `riemann()`

### **riemann**

Draw a Riemann sum of a function, and optionally plot the function.

### Parameters

```
riemann(  
  fn: function,  
  start: number,  
  end: number,  
  n: number,  
  y-scale: number,  
  x-offset: number,  
  y-offset: number,  
  hand: string,  
  transparency: number,  
  dot-radius: number,  
  plot: boolean,  
  plot-grid: boolean,  
  plot-x-tick-step: number,  
  plot-y-tick-step: number,  
  positive-color: color,  
  negative-color: color,  
  plot-line-color: color  
)
```

**fn**    `function`

The function to draw a Riemann sum of.

**start**    `number`

Where to start drawing bars.

Default: `0`

**end**    `number`

Where to end drawing bars.

Default: `10`

**n**    number

Number of bars (please make  $\Delta x = 1$ ).

Default: 10

**y-scale**    number

Y scale of bars.

Default: 1

**x-offset**    number

X offset of bars.

Default: 0

**y-offset**    number

Y offset of bars.

Default: 0

**hand**    string

Where points are derived from. Can be “left”, “mid”/“midpoint”, or “right”.

Default: "left"

**transparency**    number

Transparency fill of bars.

Default: 40%

**dot-radius**    number

Radius of dots.

Default: 0.055

**plot**    boolean

Whether to add plot of the function.

Default: true

**plot-grid** boolean

Show grid on plot.

Default: `false`

**plot-x-tick-step** number

X tick step of plot.

Default: `auto`

**plot-y-tick-step** number

Y tick step of plot.

Default: `auto`

**positive-color** color

Color of positive bars.

Default: `color.green`

**negative-color** color

Color of negative bars.

Default: `color.red`

**plot-line-color** color

Color of plotted line.

Default: `color.blue`