CeTZ Venn 0.1.3

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Default: 2em

## 1 Introduction

CeTZ Venn is a tiny package for drawing two- and three-set Venn diagrams using Typst and CeTZ.

CeTZ version  $\geq$  0.3.1 is required!

# 2 Examples

A simple two set Venn diagram:

```
cetz.canvas({
  cetz-venn.venn2(
    name: "venn",
    a-fill: gray,
    ab-fill: gray,
)

import cetz.draw: *
  content("venn.ab", [AB])
})
```

A three set diagram with arrows:

```
cetz.canvas({
   cetz-venn.venn3(
        name: "venn",
        a-fill: gray,
        b-fill: gray,
        abc-fill: gray,
   }

import cetz.draw: *
   content("venn.c", [C])

line("venn.abc", (rel: (2.2,-2.5)), mark: (start: "o", fill: black), name: "arrow")
   content("arrow.end", [Here], anchor: "north", padding: .1)
})
```

# 3 Styling

All diagrams use the style root venn and accept the following style keys:

fill: fill Default: "white"

The default fill for all elements

stroke: stroke Default: auto

The default stroke for all elements

```
padding: number or dictionary
```

Padding of the outer (rect) element. Per side padding can be specified by passing a dicitonary with one or more of the following keys: top, bottom, left, right and rest, where rest acts as a fallback for unset values.

## 4 Functions

### 4.0.1 venn2

Draw a venn diagram with two sets a and b

#### Set attributes:

The venn2 function has two sets a and b, each of them having the following attributes:

• \*-fill: Fill color

• \*-stroke: Stroke style

• \*-layer: CeTZ layer index

To set a set-attribute, combine the set name (a) and the attribute key (fill) with a dash: a-fill.

```
cetz.canvas({
  cetz-venn.venn2(a-fill: red, b-fill: green)
})
```

The following set names exist and also act as anchors (for labels):

- a
- b
- ab
- not-ab

#### **Parameters**

```
venn2(
    ..args: any,
    name: none string
)
```

```
..args any
Set and style attributes
```

```
name none or string

Element name

Default: none
```

### 4.0.2 venn3

Draw a venn diagram with three sets a, b and c

See venn2 for the attribute documentation.

```
cetz.canvas({
  cetz-venn.venn3(not-abc-fill: red)
})
```

The following set names exist and also act as anchors (for labels):

- a
- b
- C
- ab
- bc
- ac
- abc
- not-abc

### **Parameters**

```
venn3(
    ..args: any,
    name: none string
)
```

```
..args any
Set attributes
```

```
name none or string

Element name

Default: none
```