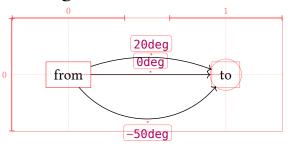
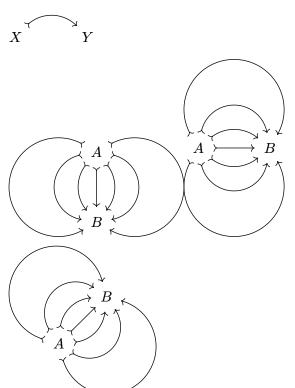
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# Arc edges

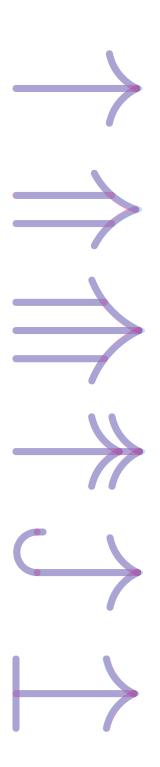




# Matching math arrows

Compare to  $\rightarrow$ ,  $\Rightarrow$ ,  $\Rightarrow$ ,  $\rightarrow$ ,  $\hookrightarrow$ ,  $\mapsto$ .

Our output versus reference symbol in default math font.



## Double and triple lines

Diagram  $A \xrightarrow{f} B$  and equation  $A \to B$ .

Diagram  $A \xrightarrow{f} B$  and equation  $A \Rightarrow B$ .

Diagram  $A \xrightarrow{f} B$  and equation  $A \Rightarrow B$ 

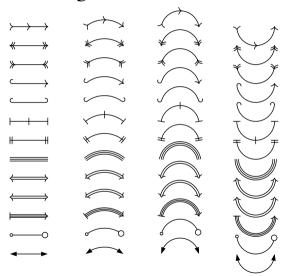
Diagram  $A \Longrightarrow^f B$  and equation  $A \Rightarrow B$ .

#### Arrow head shorthands

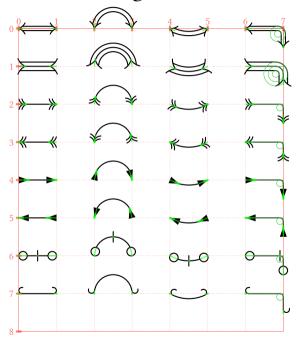
# Symbol arrow aliases

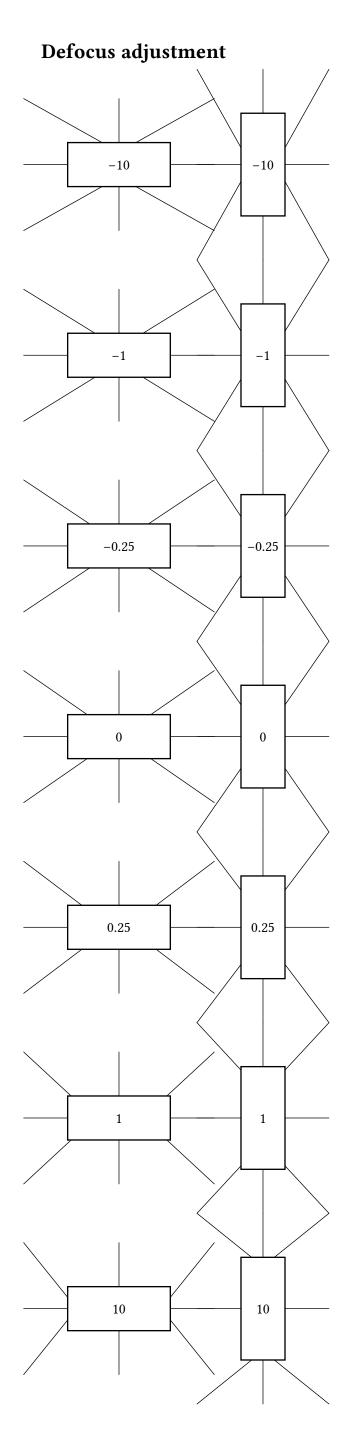
	İ	i	i
Math	Unicode	Mark	Diagram
$\rightarrow$	$\rightarrow$	->	$\longrightarrow$
$\longrightarrow$	?	->	$\longrightarrow$
$\leftarrow$	<b>←</b>	<-	<del></del>
$\leftrightarrow$	$\leftrightarrow$	<->	$\longleftrightarrow$
$\longleftrightarrow$	?	<->	$\longleftrightarrow$
<b>→</b>	?	->>	<del>*************************************</del>
<del>«</del>	?	<<-	*
$\rightarrow$	?	>->	$\longrightarrow$
$\leftarrow$	?	<-<	<b>←</b>
$\Rightarrow$	$\Rightarrow$	=>	$\Longrightarrow$
$\Rightarrow$	?	=>	$\Longrightarrow$
$\leftarrow$	?	<=	<del></del>
$\Leftrightarrow$	$\Leftrightarrow$	<=>	$\iff$
$\Leftrightarrow$	?	<=>	$\longleftrightarrow$
$\mapsto$	$\mapsto$	->	$\longmapsto$
$\Rightarrow$	?	=>	$\longmapsto$
^>	?	none!	none!
₩	?	none!	none!
$\hookrightarrow$		hook->	$\hookrightarrow$
$\leftarrow$		<-hook'	<del></del>

# Bending arrows

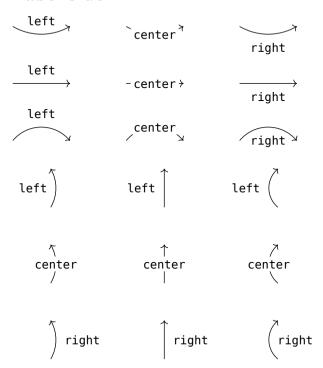


# Fine mark angle corrections



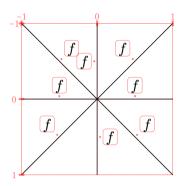


#### Label side

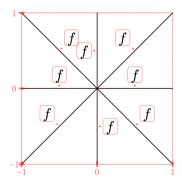


# Automatic label placement

Default placement above the line.



#### Reversed *y*-axis:



# **Crossing connectors**



### edge() argument shorthands

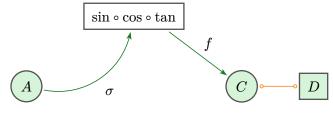


#### edge() stroke



(none)

# **Diagram-level options**



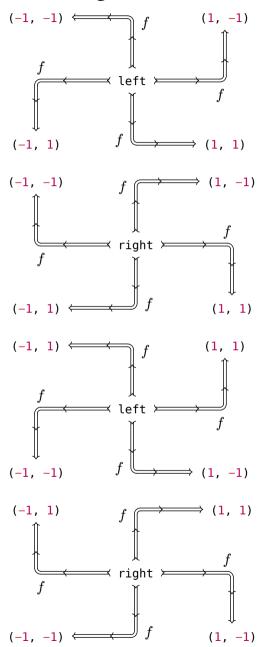
# **CeTZ** integration

TODO!

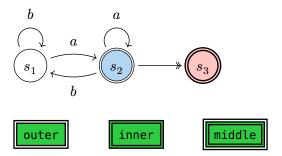
Bézier



## Corner edges



#### Double node strokes

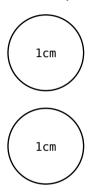


Relative and absolute extrusion lengths



#### Custom node sizes

Make sure provided dimensions are exact, not affected by node inset.



width

height

b<mark>ot</mark>h

#### Node inset and outset

What 5mm inset should look like:



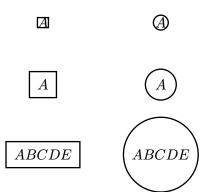
A diagram node with 5mm inset:



A diagram node with 5mm outset:

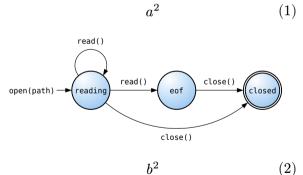


Circular insets:

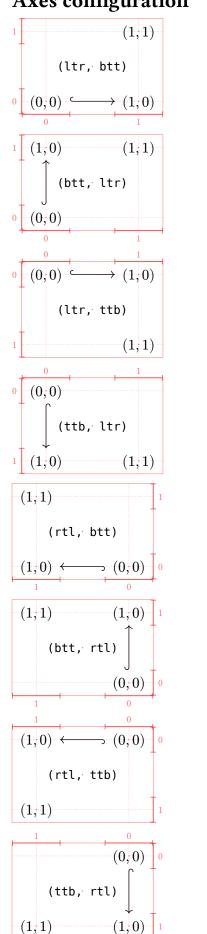


### Example

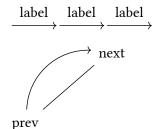
Make sure node or edge labels don't pick up equation numbers!



# Axes configuration



# Implicit from and to points



#### Edge positional arguments

Explicit named arguments versus implicit positional arguments.

Each row should be the same thing repeated.

$$A \xrightarrow{\pi} B A \xrightarrow{\pi} B A \xrightarrow{\pi} B A \xrightarrow{\pi} B$$

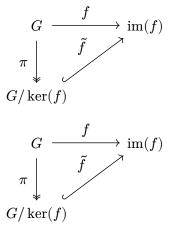
$$A \xrightarrow{\tau} B A \xrightarrow{\tau} B A \xrightarrow{\tau} B A \xrightarrow{\tau} B$$

$$A \xrightarrow{\tau} B A \xrightarrow{\tau} B A \xrightarrow{\tau} B A \xrightarrow{\tau} B$$

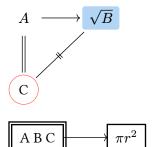
$$A \xrightarrow{+} B A \xrightarrow{+} B A \xrightarrow{+} B$$

#### Math-mode diagrams

The following diagrams should be identical:



### Nodes in math-mode



#### Relative node coordinates

$$G \xrightarrow{\widetilde{f}} \operatorname{im}(f)$$

$$\pi \downarrow \qquad \widetilde{f}$$

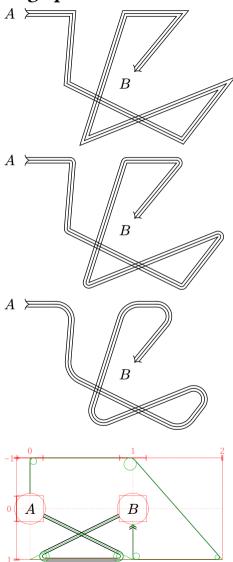
$$G/\ker(f)$$

$$(0,0) \qquad (1,0) \qquad (0,0) \qquad (1,0)$$

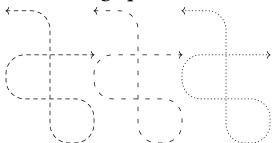
$$\uparrow \qquad \uparrow \qquad \uparrow \qquad \uparrow$$

$$(0,1) \qquad (1,1) \qquad (0,1) \qquad (1,1)$$

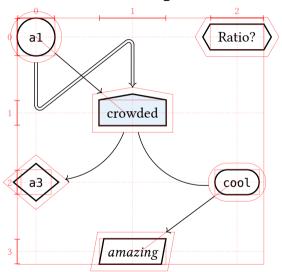
# Edge paths



# Dashed edge paths



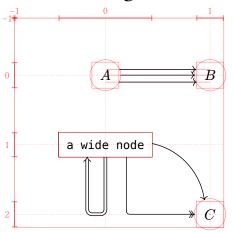
# Custom node shapes



## **Intersection finding**



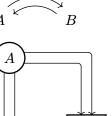
# Off-center edges



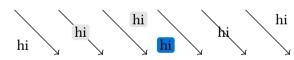
# Edge shift







#### Label fill



#### Line decorations

 $A \longleftrightarrow B \longleftrightarrow C \longleftrightarrow C \longleftrightarrow$ 

