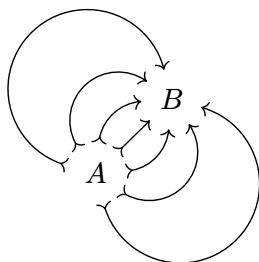
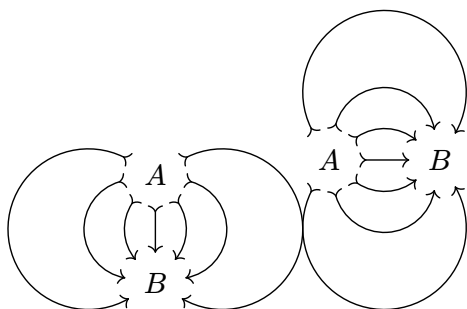
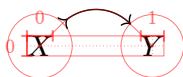
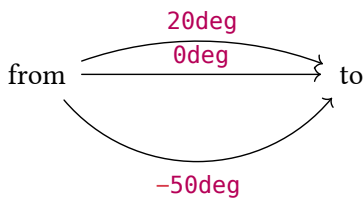


Connectors



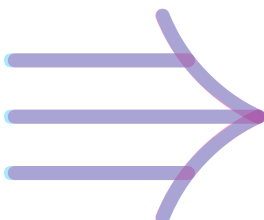
Arc connectors



Matching math arrows

Compare to \rightarrow , \Rightarrow , \implies , \twoheadrightarrow , \hookrightarrow , \mapsto .

Compare **our output** to the **reference symbol** in default math font.




Double and triple lines


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


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


Diagram $A \xRightarrow{\quad f \quad} B$ and equation $A \equiv B$.


Arrow head shorthands


"->" = 


"<-" = 


">-<" = 


"<->" = 


"<=>" = 


"<==>" = 


"|->" = 


"|=>" = 


">->" = 


"<<->>" = 


">>-<<" = 


">>>-}>" = 


"hook->" = 


"hook' - - hook" = 


"|=|" = 


"|||-||" = 


"||| - |||" = 


"/- - \\" = 


"\\ = \\" = 

"/=/" = 


"x-X" = 


">>-<<" = 


"harpoon-harpoon'" = 


"harpoon' -<<" = 


"<- - hook'" = 


"|. . |" = 


"hooks - - hooks" = 


"o-0" = 


"0-o" = 


"*-@" = 

"o==0" = 


"||->>" = 

"<| - |>" = 

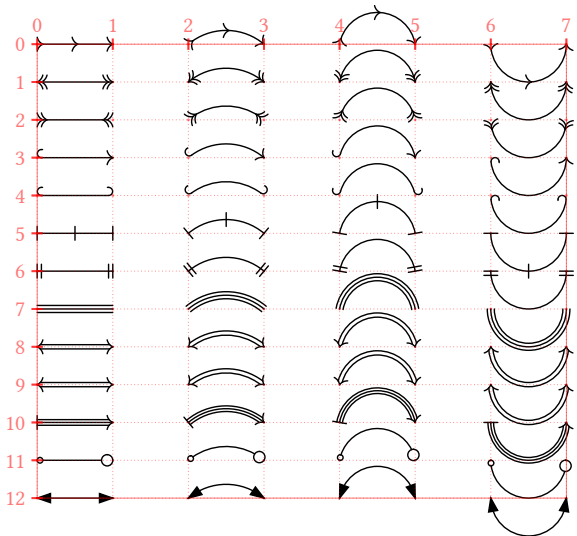
"|>-<|" = 

"-|- " = 

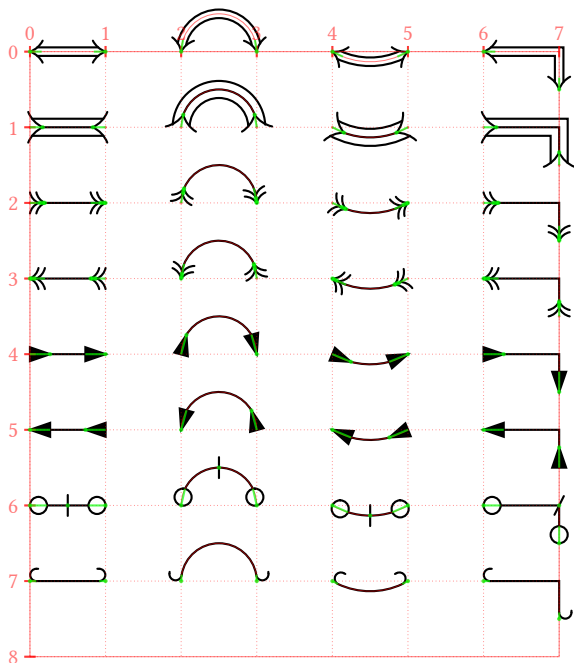
"hook-/->" = 

"<{-}>" = 

Bending arrows



Fine mark angle corrections

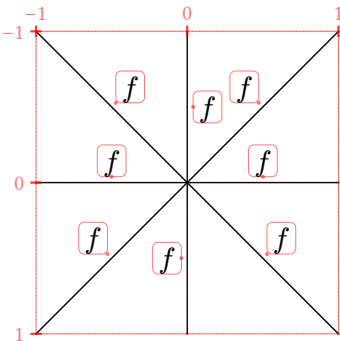


Defocus adjustment

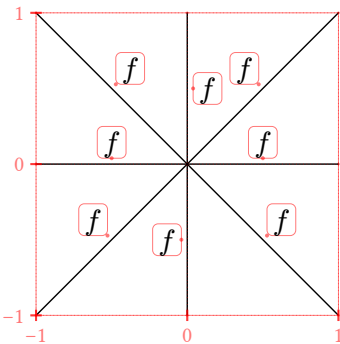


Automatic label placement

Default placement above the line.



Reversed y -axis:



left →

↖ center ↗

↘ right ↗

→ left

↖ center ↗

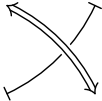
→ right

left ↘

↖ center ↘

↖ right ↘

Crossing connectors



edge() argument shorthands

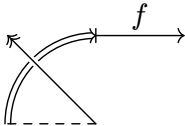
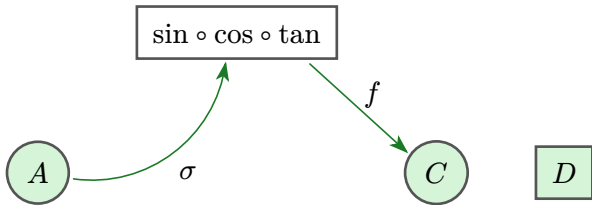


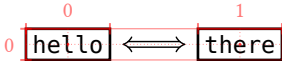
Diagram-level options



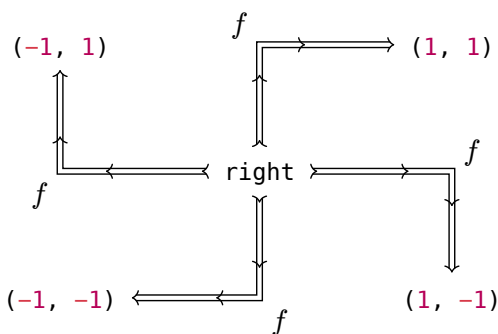
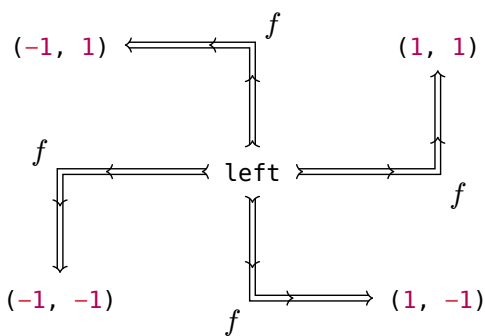
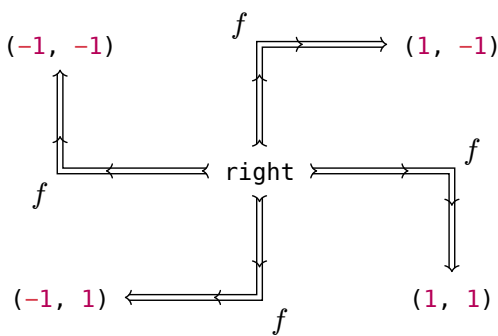
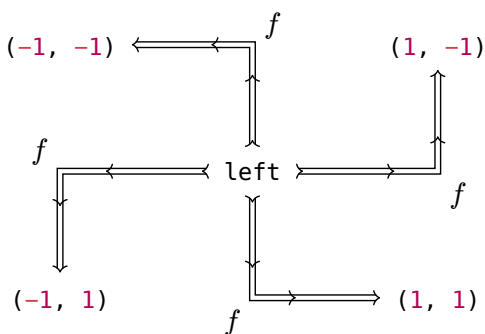
CeTZ integration



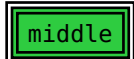
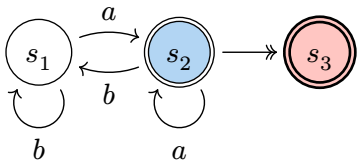
Node bounds, inset, and outset



Corner edges



Double node strokes

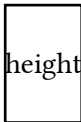
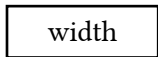


Relative and absolute extrusion lengths

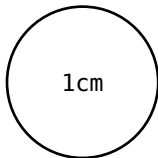


Custom node sizes

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



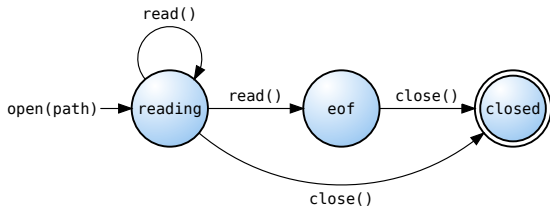
both



Example

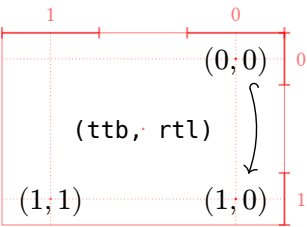
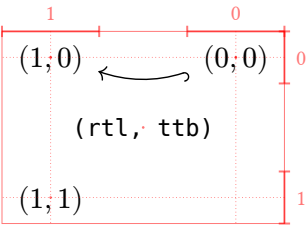
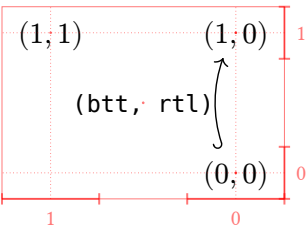
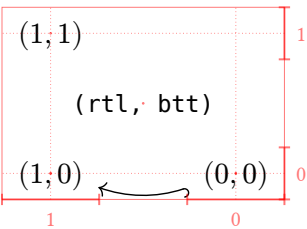
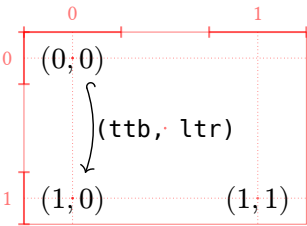
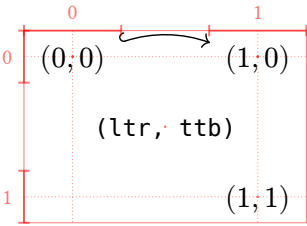
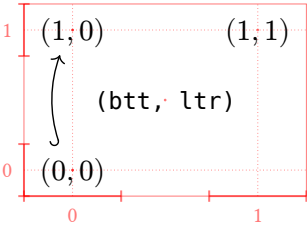
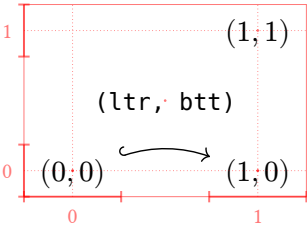
Make sure node or edge labels don't pick up equation numbers!

$$a^2 \quad (1)$$

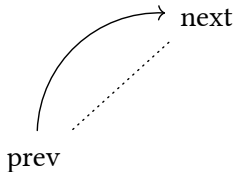
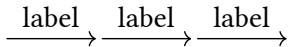


$$b^2 \quad (2)$$

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.

$A \longrightarrow B$	$A \longrightarrow B$	$A \longrightarrow B$
$A \xrightarrow{\pi} B$	$A \xrightarrow{\pi} B$	$A \xrightarrow{\pi} B$
$A \xrightarrow{\tau} B$	$A \xrightarrow{\tau} B$	$A \xrightarrow{\tau} B$
$A \xrightarrow{+} B$	$A \xrightarrow{+} B$	$A \xrightarrow{+} B$

Symbol arrow aliases

Math	Unicode	Mark	Diagram
\rightarrow	\rightarrow	->	
\longrightarrow		->	
\leftarrow	\leftarrow	<-	
\leftrightarrow	\leftrightarrow	<->	
\longleftrightarrow		<->	
\Rightarrow		->>	
\Leftarrow		<<-	
\rightharpoonup		>->	
\leftharpoonup		<-<	
\Rightarrow	\Rightarrow	=>	
\Longrightarrow		=>	
\Leftarrow		<=	
\Leftrightarrow	\Leftrightarrow	<=>	
\Leftrightarrow		<=>	
\mapsto	\mapsto	->	
\mapsto		=>	
\rightsquigarrow		none!	none!
\leftrightsquigarrow		none!	none!
\hookrightarrow		hook->	
\hookleftarrow		<-hook'	

Math-mode diagrams

The following diagrams should be identical:

$$\begin{array}{ccc} G & \xrightarrow{f} & \operatorname{im}(f) \\ \downarrow \pi & \nearrow \tilde{f} & \\ G/\ker(f) & & \end{array}$$

$$\begin{array}{ccc} G & \xrightarrow{f} & \operatorname{im}(f) \\ \downarrow \pi & \nearrow \tilde{f} & \\ G/\ker(f) & & \end{array}$$

?

```
(
  nodes: (
    (
      class: "node",
      pos: (0, 0),
      label: equation(body: [[[A], [ ],
[ ]]], block: false),
      inset: auto,
      outset: auto,
      size: (auto, auto),
      radius: auto,
      shape: auto,
      stroke: auto,
      fill: auto,
      corner-radius: auto,
      defocus: auto,
      extrude: (0,)),
    ),
    (
      class: "node",
      pos: (1, 0),
      label: equation(body: [[[ ],
[B]]], block: false),
      inset: auto,
      outset: auto,
      size: (auto, auto),
      radius: auto,
      shape: auto,
      stroke: auto,
      fill: auto,
      corner-radius: auto,
      defocus: auto,
      extrude: (0,)),
    ),
  ),
  edges: (
    (
      class: "edge",
      points: ((0, 0), (1, 0)),
      label: none,
      label-pos: 0.5,
      label-sep: auto,
      label-anchor: auto,
      label-side: auto,
      kind: auto,
      bend: 0deg,
      corner: none,
      stroke: (cap: "round", cap: none),
      marks: (
        (
          size: 7,
          sharpness: 24deg,
          delta: 54deg,
          outer-len: 4,
          pos: 1,
          rev: false,
          kind: "head",
        ),
      ),
      mark-scale: 100%,
      extrude: (0,)),
    is-crossing-background: false,
    crossing-thickness: auto,
    crossing-fill: auto,
  ),
),
)
```