Einführung in PSTricks

Teil II – Pakete

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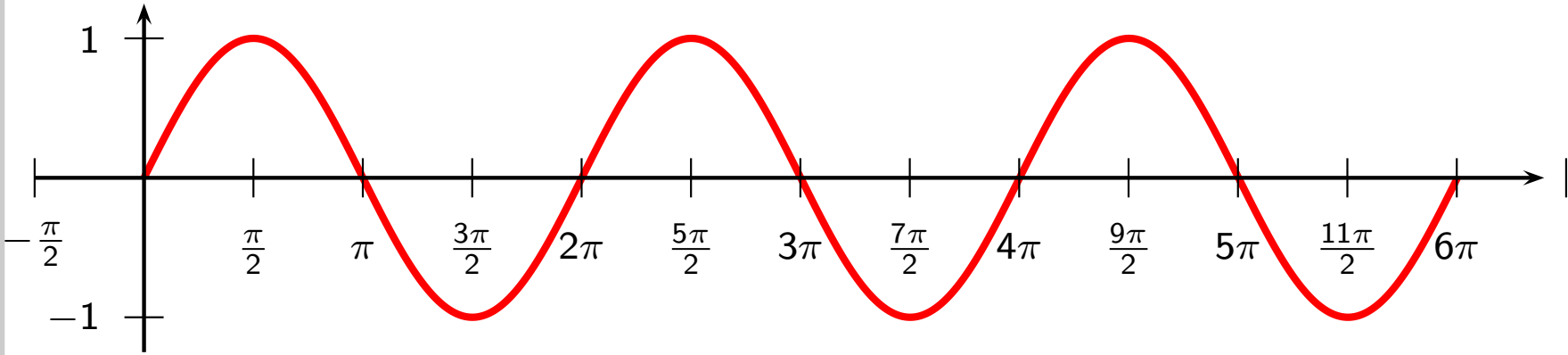
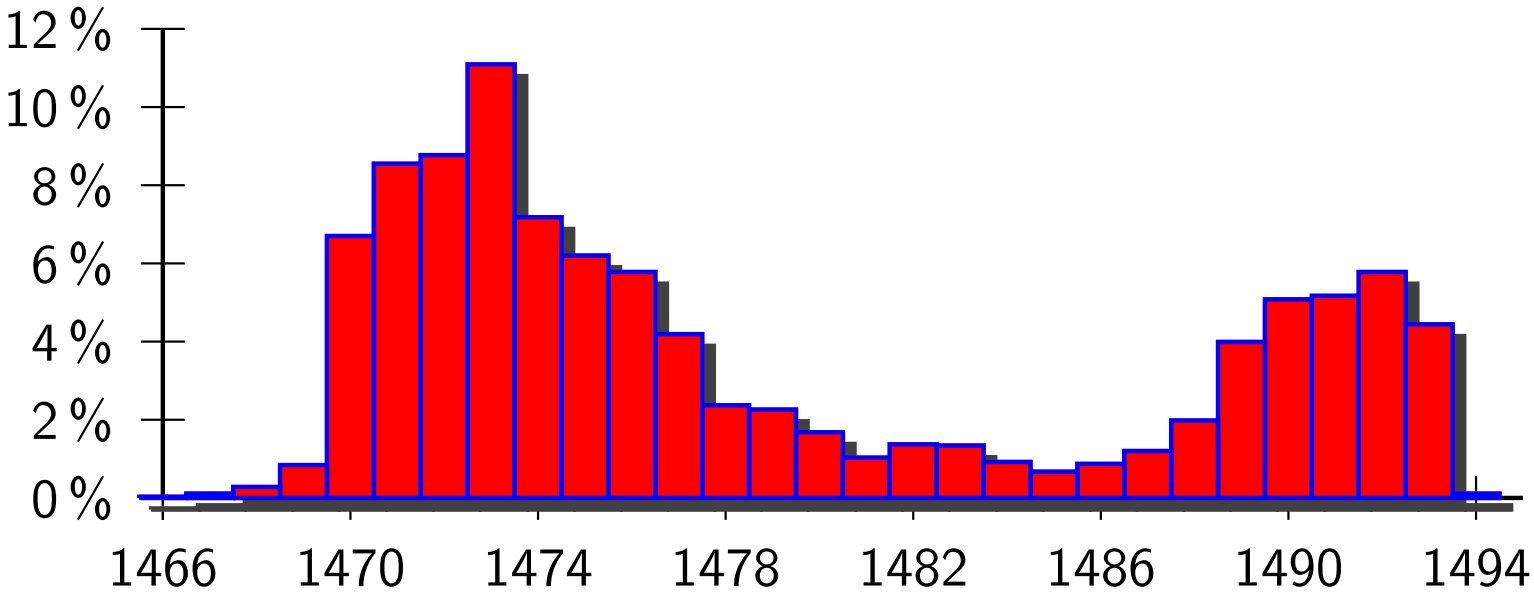
pst-plot



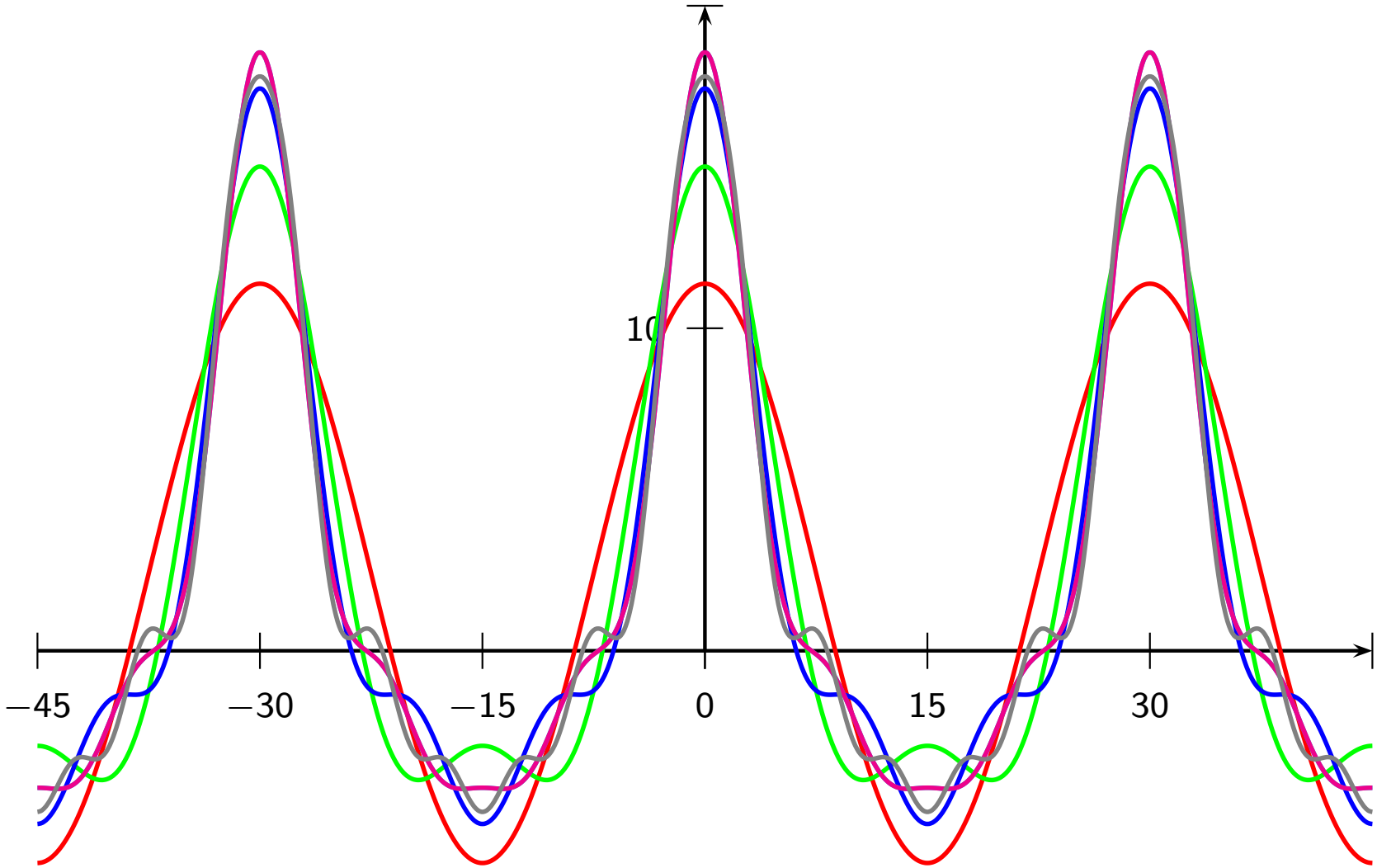

```
%\usepackage{pstricks-add}
\footnotesize
\begin{pspicture}(-0.5,-1.25)(10,1.25)
 \psplot[linecolor=red,linewidth=1.5pt,plotpoints=500]%
    {0}{9.424}{ x dup add RadtoDeg sin }
  \psaxes[xunit=0.785,showorigin=false,%
    trigLabels]{->}(0,0)(-1,-1.25)(12.8,1.25)
\end{pspicture}
```

pst-plot




```
\psset{xunit=.3cm,yunit=.25cm}
\begin{pspicture}(-2.25,-2)(29,12)
 \psaxes[Ox=1466,Oy=0,Dx=4,Dy=2,ylabelFactor={\,\%}]{-}(29,12)
 \listplot[shadow=true,linecolor=blue,plotstyle=bar,%
    barwidth=0.3cm, fillcolor=red,fillstyle=solid]{\barData}
\end{pspicture}
```

pst-plot



pst-plot I


```
\makeatletter
\pst@addfams{user}
\define@key[psset]{user}{nLoop}{\def\psnLoop{#1}}
\psset[user]{nLoop=1}
\makeatother

\def\chooseColor#1{%
  \ifcase#1\or red\or green\or blue\or cyan\or magenta
    \or gray\fi}
\psset{xunit=1.15mm,yunit=2.5mm}
\begin{pspicture}(-45,0)(45,20)
  \psaxes[Dy=10,Dx=15]{->}(0,0)(-45,0)(45,20)%
  \psset{linewidth=1pt}%
  \pstVerb{%
     /dc 0.2 def  /kx 12 def   /ky 12 def
     /si { Pi mul dup RadtoDeg sin exch div } def
     /Func {
       /nLoop exch def
       x kx mul nLoop mul cos
```

pst-plot II


```
19          nLoop dc mul si mul
20        } def
21    }%
22    \psset{plotpoints=400,linecolor=red,plotstyle=curve}
23    \multido{\iA=1+1}{6}{%
24      \psplot[linecolor=\chooseColor\iA,nLoop=\iA
          ]{-45}{45}{%
25        /y0 x kx mul cos dc si mul def
26        /y1 0 def
27        1 1 \psnLoop {
28          Func y1 add /y1 exch def
29        } for
30        y1 y0 add
31        dc mul 2 mul
32        dc add
33        ky mul
34      }%
35    }%
36  \end{pspicture}
```

Standard **von hier nach da ...**

Knotentypen Die einzige Einschränkung ist die Tatsache, dass alle Knoten auf derselben Seite liegen müssen!

Verbatim

Knotentypen Die einzige Einschränkung ist die Tatsache, dass alle Knoten auf derselben Seite liegen müssen!

Verbatim

Knoten

Nichts ist unmöglich . . .

Standard von hier nach da ... `\rnode{B}{hier}` oder zur Überschrift . . .

Knotentypen Die einzige Einschränkung ist die Tatsache, dass alle Knoten auf derselben Seite liegen müssen!

Verbatim

Standard von hier nach da ... `\rnode{B}{hier}` oder zur Überschrift . . .

Knotentypen Die einzige Einschränkung ist die Tatsache, dass alle Knoten auf derselben Seite liegen müssen!

Verbatim

Knoten

Nichts ist unmöglich . . .

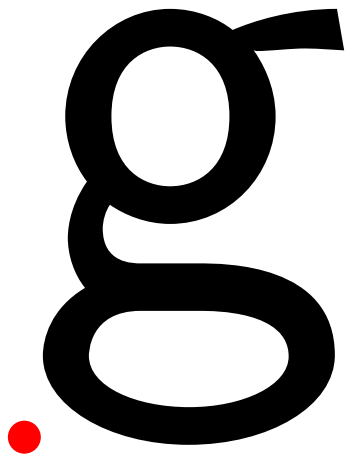
Standard von hier nach da ... `\rnode{B}{hier}` oder zur Überschrift . . .

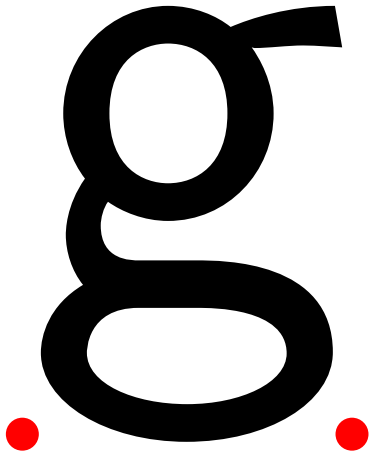
Knotentypen **Die einzige Einschränkung ist die Tatsache, dass alle Knoten auf derselben Seite liegen müssen!**

Verbatim

Knoten

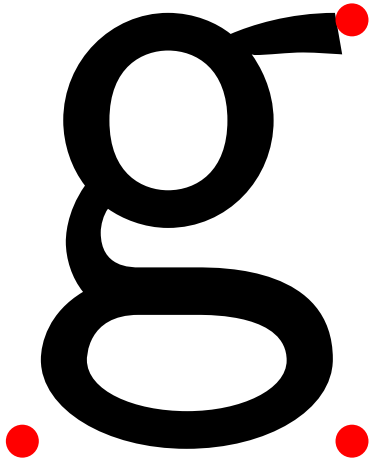
Knotentyp `\rnode[Position]{Knotenname}{Inhalt}`

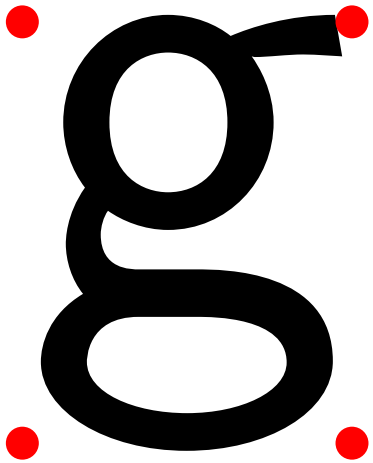




Knoten

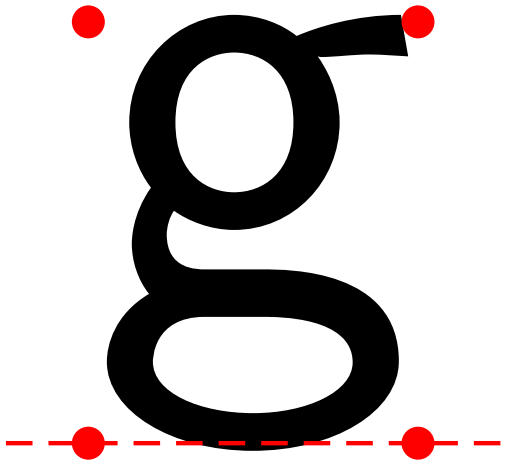
Knotentyp `\rnode[Position]{Knotenname}{Inhalt}`

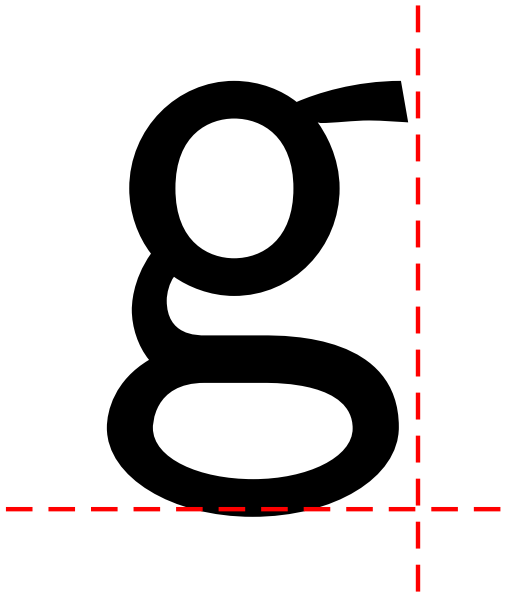




Knoten

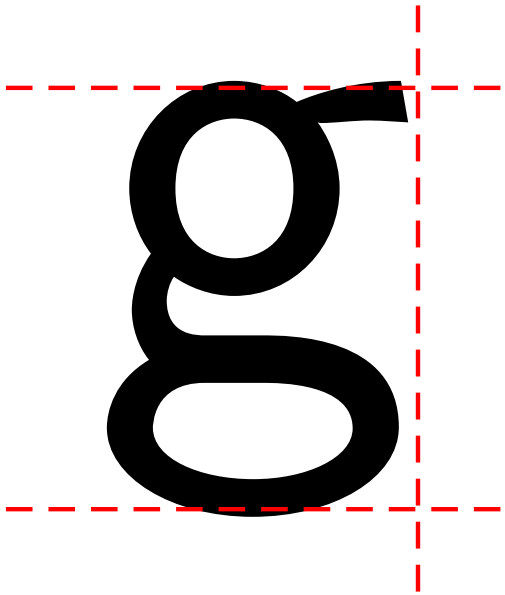
Knotentyp \rnode[Position]{Knotenname}{Inhalt}

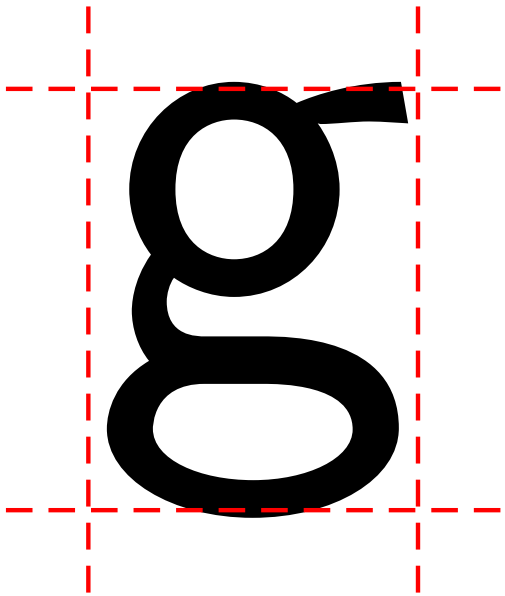


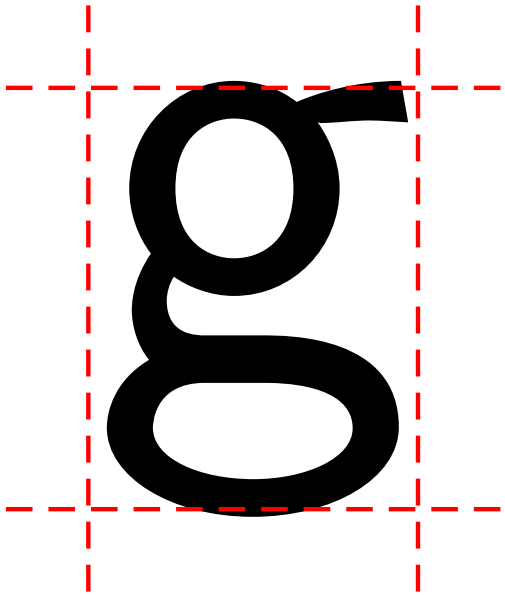

g

Knoten

Knotentyp `\rnode[Position]{Knotenname}{Inhalt}`

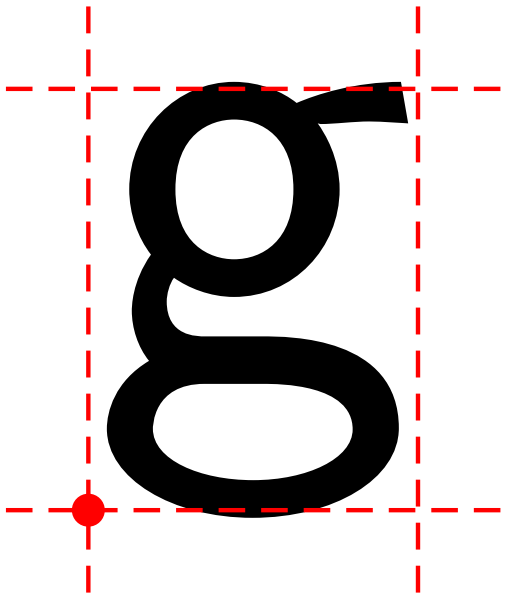



g



\rnode

```
\quad\rnode[lb]{A}{\rnode[rb]{B}{\rnode[rt]{C}{%
   \rnode[lt]{D}{\scalebox{12}{g}}}}}
\psset{nodesep=5pt}
\ncline{A}{B}\ncline{B}{C}\ncline{C}{D}\ncline{D}{A}
```

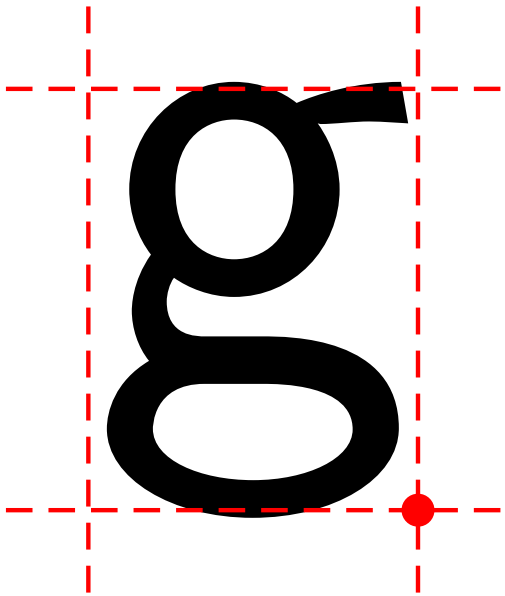


\rnode

```
\quad\rnode[lb]{A}{\rnode[rb]{B}{\rnode[rt]{C}{%
   \rnode[lt]{D}{\scalebox{12}{g}}}}}
\psset{nodesep=5pt}
\ncline{A}{B}\ncline{B}{C}\ncline{C}{D}\ncline{D}{A}
```

Knoten

Knotentyp \rnode[Position]{Knotenname}{Inhalt}

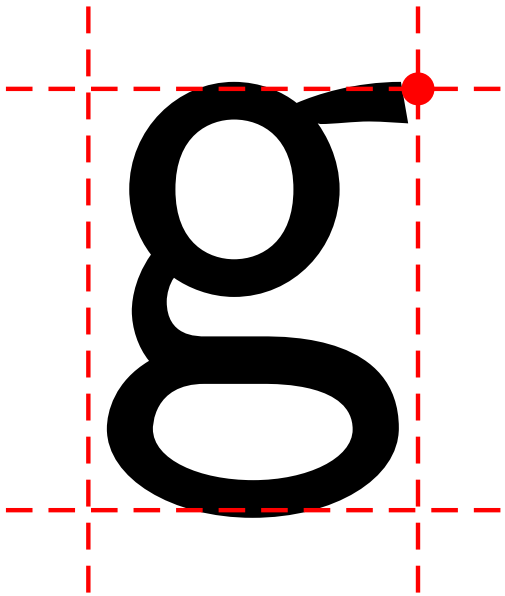


\rnode

```
\quad\rnode[lb]{A}{\rnode[rb]{B}{\rnode[rt]{C}{%
   \rnode[lt]{D}{\scalebox{12}{g}}}}}
\psset{nodesep=5pt}
\ncline{A}{B}\ncline{B}{C}\ncline{C}{D}\ncline{D}{A}
```

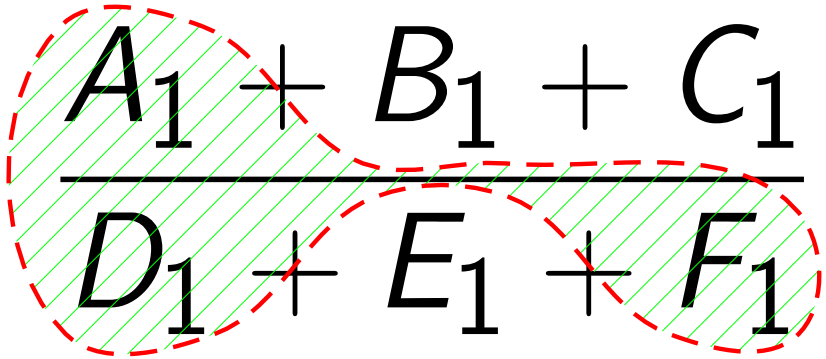
Knoten

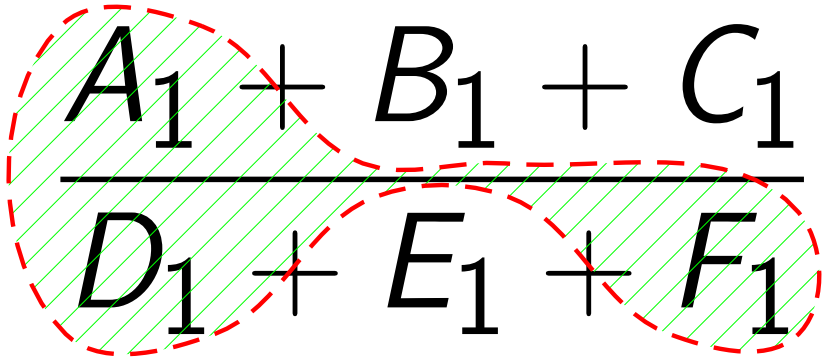
Knotentyp \rnode[Position]{Knotenname}{Inhalt}



\rnode

```
\quad\rnode[lb]{A}{\rnode[rb]{B}{\rnode[rt]{C}{%
   \rnode[lt]{D}{\scalebox{12}{g}}}}}
\psset{nodesep=5pt}
\ncline{A}{B}\ncline{B}{C}\ncline{C}{D}\ncline{D}{A}
```

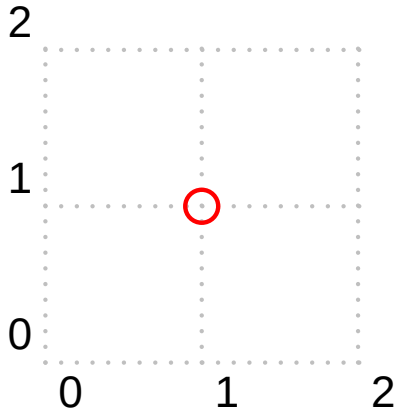





```
\def\DefNodes#1#2{%
  \rnode[tl]{#1-tl}{\rnode[tr]{#1-tr}{%
        \rnode[bl]{#1-bl}{\rnode[br]{#1-br}{#2}}}}}
\[\frac{\DefNodes{A}{A_1}+\DefNodes{B}{B_1}+C_1}
 {\DefNodes{D}{D_1}+\DefNodes{E}{E_1}+\DefNodes{F}{F
   _1}}\]
\psccurve[...](D-bl)(A-tl)(A-tr)([angle=-90,nodesep
  =0.1]B-bl)
 ([angle=-90,nodesep=0.1]B-br)(F-tr)(F-br)(F-bl)
 ([angle=90,nodesep=0.1]E-tr)
 ([angle=90,nodesep=0.1]E-tl)(D-br)(D-bl)
```

Knoten

\cnode[Optionen](x,y){Radius}{Knotenname}
\circlenode[Optionen]{Knotenname}{Inhalt}



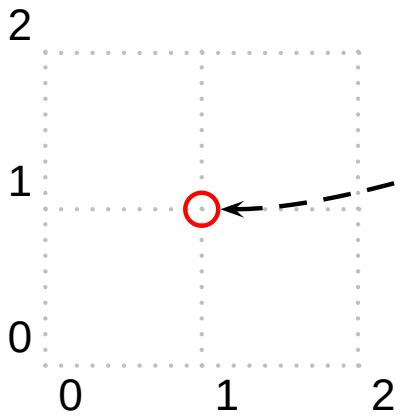

```
\begin{pspicture}[showgrid=true](2,2)
  \cnode[linecolor=red](1,1){3pt}{B}
  \visible<2>{\nccurve[arrows=->,linestyle=dashed
    ]{A}{B}}
\end{pspicture}
```


```
\psframe[fillcolor=lightgray,%
    fillstyle=solid](-0.1,1)
      (3.75,-0.5)
\circlenode[linecolor=red]{A}{A}\
  hspace{2cm}%
\circlenode*{B}{\huge B}
\visible<3>{\nccurve[linestyle=dashed,
  angle=180]{->}{C}{B}}
\visible<3>{\nccurve[linestyle=dashed,
  angleA=180,angleB=100]{->}{C}{A}}
```

Knoten

\cnode[Optionen](x,y){Radius}{Knotenname}

\circlenode[Optionen]{Knotenname}{Inhalt}

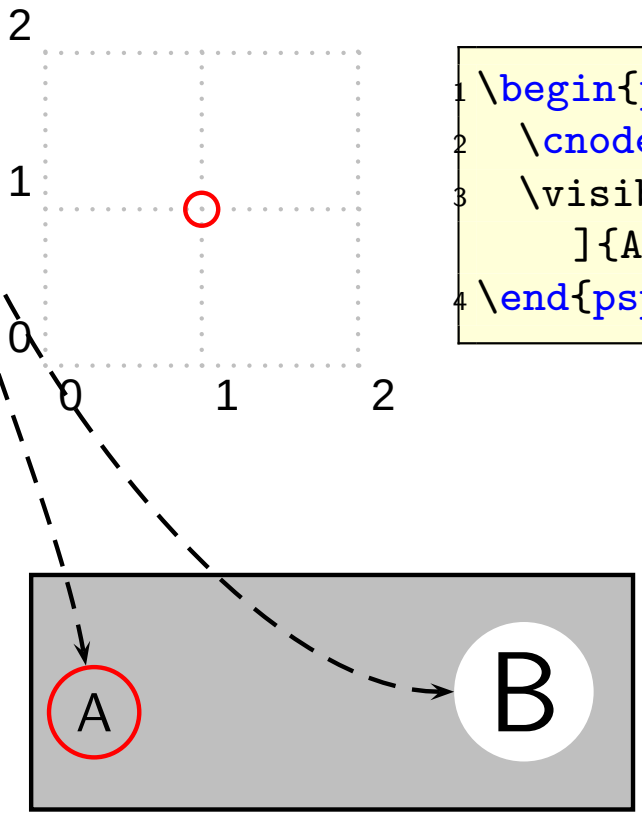



```
\begin{pspicture}[showgrid=true](2,2)
  \cnode[linecolor=red](1,1){3pt}{B}
  \visible<2>{\nccurve[arrows=->,linestyle=dashed
    ]{A}{B}}
\end{pspicture}
```


```
\psframe[fillcolor=lightgray,%
    fillstyle=solid](-0.1,1)
      (3.75,-0.5)
\circlenode[linecolor=red]{A}{A}\
  hspace{2cm}%
\circlenode*{B}{\huge B}
\visible<3>{\nccurve[linestyle=dashed,
  angle=180]{->}{C}{B}}
\visible<3>{\nccurve[linestyle=dashed,
  angleA=180,angleB=100]{->}{C}{A}}
```

Knoten

\cnode[Optionen](x,y){Radius}{Knotenname}
\circlenode[Optionen]{Knotenname}{Inhalt}



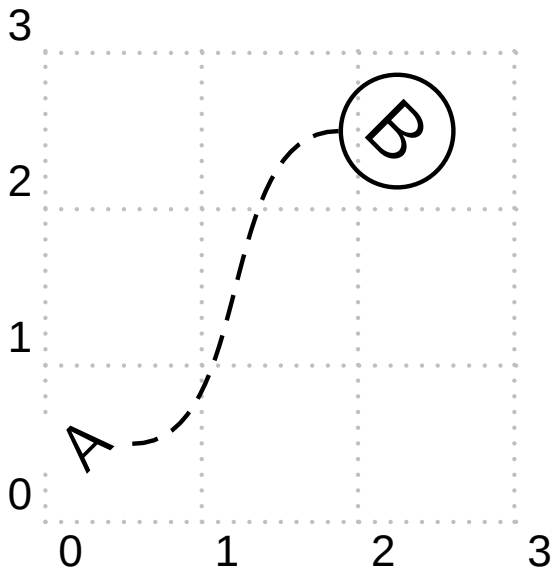

```
\begin{pspicture}[showgrid=true](2,2)
  \cnode[linecolor=red](1,1){3pt}{B}
  \visible<2>{\nccurve[arrows=->,linestyle=dashed
    ]{A}{B}}
\end{pspicture}
```

```
\psframe[fillcolor=lightgray,%
    fillstyle=solid](-0.1,1)
      (3.75,-0.5)
\circlenode[linecolor=red]{A}{A}\
  hspace{2cm}%
\circlenode*{B}{\huge B}
\visible<3>{\nccurve[linestyle=dashed,
  angle=180]{->}{C}{B}}
\visible<3>{\nccurve[linestyle=dashed,
  angleA=180,angleB=100]{->}{C}{A}}
```

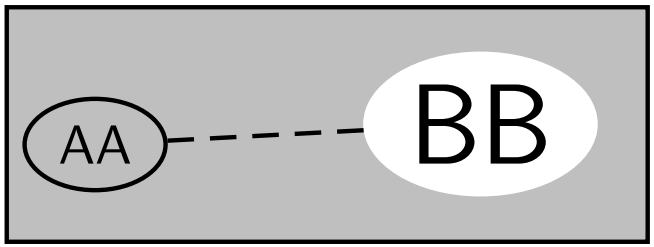
Knoten

\cnodeput[Optionen]{Rotation}(x,y){Knotenname}{Inhalt}

\ovalnode[Optionen]{Knotenname}{Inhalt}



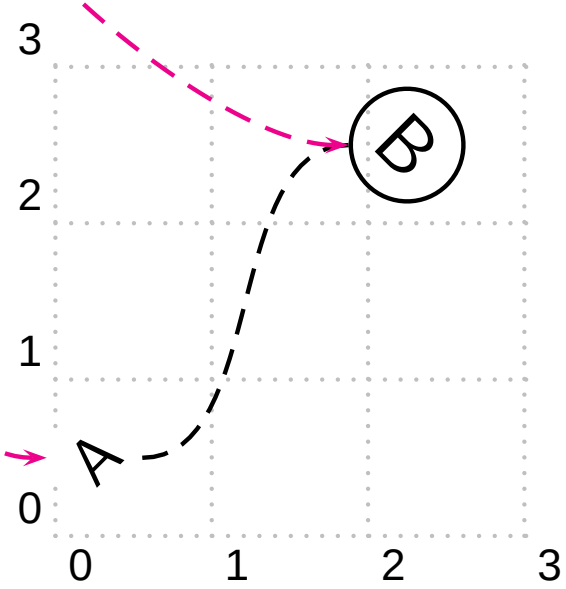

```
\begin{pspicture}[showgrid=true](3,3)
 \cnodeput*{45}(0.25,0.5){A}{\large A}
 \cnodeput{-45}(2.25,2.5){B}{\Large B}
 \nccurve[linestyle=dashed,angleB=180]{A}{B
   }
\end{pspicture}
```



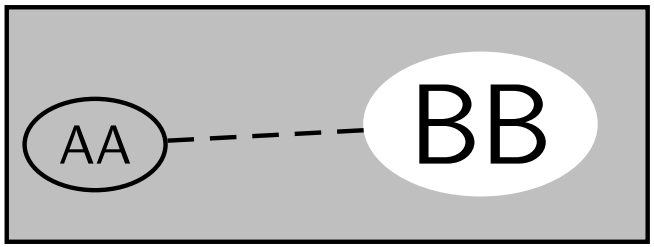

```
\psframe[fillcolor=lightgray,%
    fillstyle=solid](-0.1,1)(4,-0.5)
\ovalnode{A}{AA}\hspace{1.25cm}%
\ovalnode*{B}{\huge BB}%
\ncline[linestyle=dashed]{A}{B}%
```

Knoten

\cnodeput[Optionen]{Rotation}(x,y){Knotenname}{Inhalt}
\ovalnode[Optionen]{Knotenname}{Inhalt}




```
\begin{pspicture}[showgrid=true](3,3)
 \cnodeput*{45}(0.25,0.5){A}{\large A}
 \cnodeput{-45}(2.25,2.5){B}{\Large B}
 \nccurve[linestyle=dashed,angleB=180]{A}{B
   }
\end{pspicture}
```

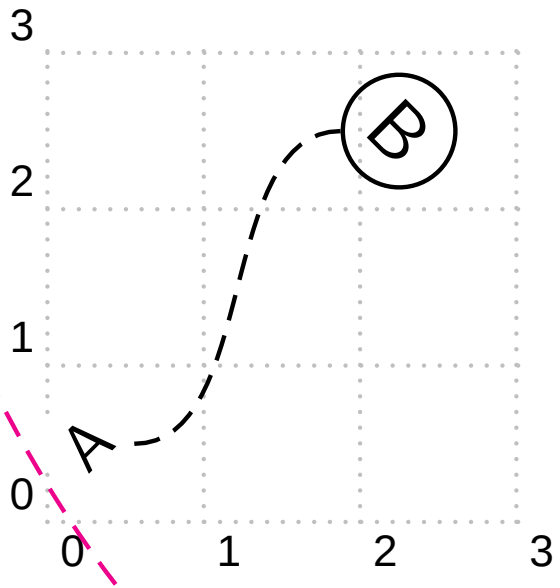



```
\psframe[fillcolor=lightgray,%
    fillstyle=solid](-0.1,1)(4,-0.5)
\ovalnode{A}{AA}\hspace{1.25cm}%
\ovalnode*{B}{\huge BB}%
\ncline[linestyle=dashed]{A}{B}%
```

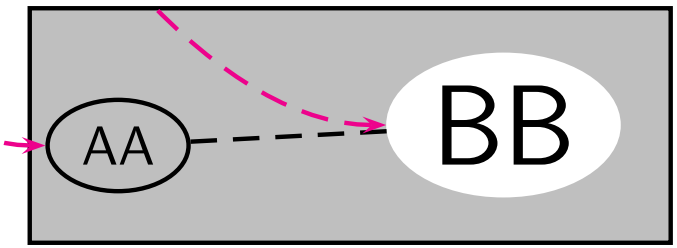
Knoten

\cnodeput[Optionen]{Rotation}(x,y){Knotenname}{Inhalt}

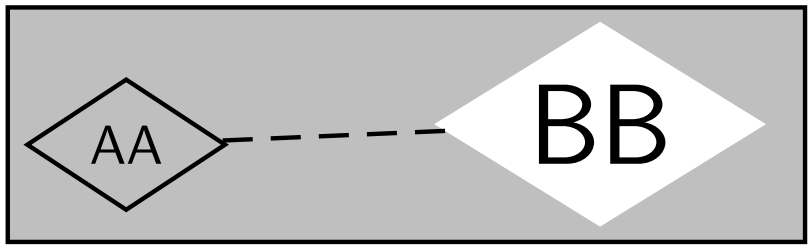
\ovalnode[Optionen]{Knotenname}{Inhalt}



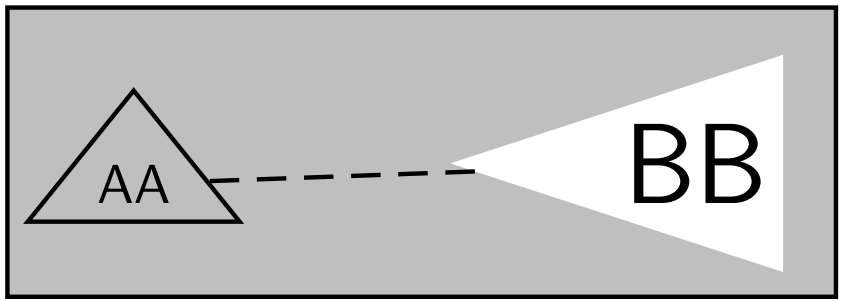

```
\begin{pspicture}[showgrid=true](3,3)
 \cnodeput*{45}(0.25,0.5){A}{\large A}
 \cnodeput{-45}(2.25,2.5){B}{\Large B}
 \nccurve[linestyle=dashed,angleB=180]{A}{B
   }
\end{pspicture}
```




```
\psframe[fillcolor=lightgray,%
    fillstyle=solid](-0.1,1)(4,-0.5)
\ovalnode{A}{AA}\hspace{1.25cm}%
\ovalnode*{B}{\huge BB}%
\ncline[linestyle=dashed]{A}{B}%
```



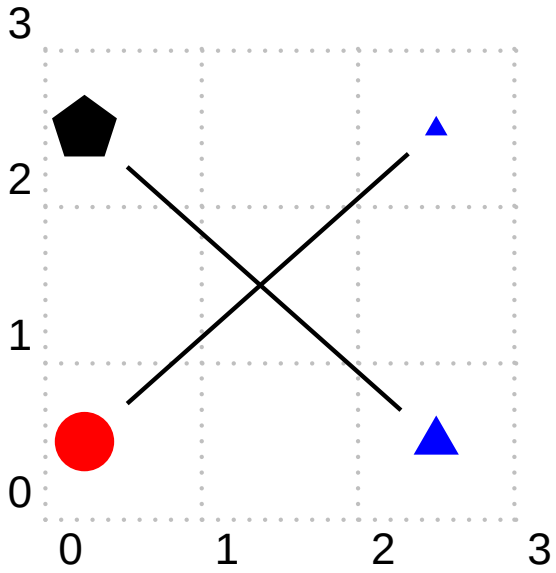

```
\psframe[fillcolor=lightgray,
 fillstyle=solid](-0.1,1)
    (5,-0.5)
\dianode{A}{AA}\hspace{1.2cm}
\dianode*{B}{\huge BB}%
\ncline[linestyle=dashed]{A}{B}
```



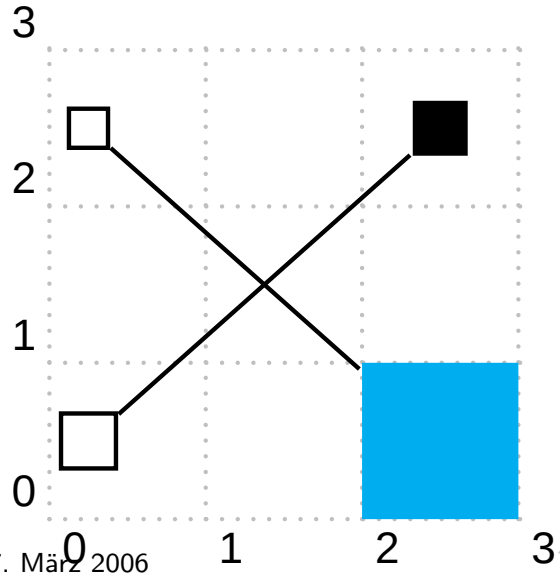

```
\psframe[fillcolor=lightgray,
 fillstyle=solid](-0.1,1.25)
    (5.2,-0.6)
\trinode{A}{AA}\hspace{1.2cm}
\trinode*[trimode=L]{B}{\huge
    BB}
\ncline[linestyle=dashed]{A}{
   B}
```

Knoten

Knotentyp \dotnode und \fnode




```
\begin{pspicture}[showgrid=true](3,3)
 \rput(0.25,0.5){\dotnode[linecolor=red,%
  dotscale=3]{A}}
 \rput(2.5,2.5){\dotnode*[linecolor=blue,%
  dotstyle=triangle*]{B}}
 \ncline[nodesep=5pt]{A}{B}
 \rput(0.25,2.5){\dotnode[dotscale=3,%
  dotstyle=pentagon*]{A}}
 \rput(2.5,0.5){\dotnode[linecolor=blue,%
  dotscale=2,dotstyle=triangle*]{B}}
 \ncline[nodesep=5pt]{A}{B}
\end{pspicture}
```




```
\begin{pspicture}[showgrid=true](3,3)
 \fnode(0.25,0.5){A}\fnode*(2.5,2.5){B}
 \ncline{A}{B}
 \fnode[framesize=0.25](0.25,2.5){A}
 \fnode*[framesize=1,linecolor=cyan
   ](2.5,0.5){B}
 \ncline{A}{B}
\end{pspicture}
```

Die Bindungsenergie im Tröpfchenmodell setzt sich aus folgenden Teilen zusammen:

- dem Oberflächenanteil,
- dem Volumenanteil,

$$E = a_v A + -a_f A^{2/3} + -a_c \frac{Z(Z-1)}{A^{1/3}} + -a_s \frac{(A-2Z)^2}{A} + E_p$$

- dem Coulomb-Anteil,
- der Symmetrieenergie,
- sowie einem Paarbildungsbeitrag.

Die Bindungsenergie im Tröpfchenmodell setzt sich aus folgenden Teilen zusammen:

- dem Oberflächenanteil,
- dem Volumenanteil,

$$E = a_v A + - a_f A^{2/3} + - a_c \frac{Z(Z-1)}{A^{1/3}} + - a_s \frac{(A-2Z)^2}{A} + E_p$$

- dem Coulomb-Anteil,
- der Symmetrieenergie,
- sowie einem Paarbildungsbeitrag.

Die Bindungsenergie im Tröpfchenmodell setzt sich aus folgenden Teilen zusammen:

- dem Oberflächenanteil,
- dem Volumenanteil,

$$E = a_v A + - a_f A^{2/3} + - a_c \frac{Z(Z-1)}{A^{1/3}} + - a_s \frac{(A-2Z)^2}{A} + E_p$$

- dem Coulomb-Anteil,
- der Symmetrieenergie,
- sowie einem Paarbildungsbeitrag.

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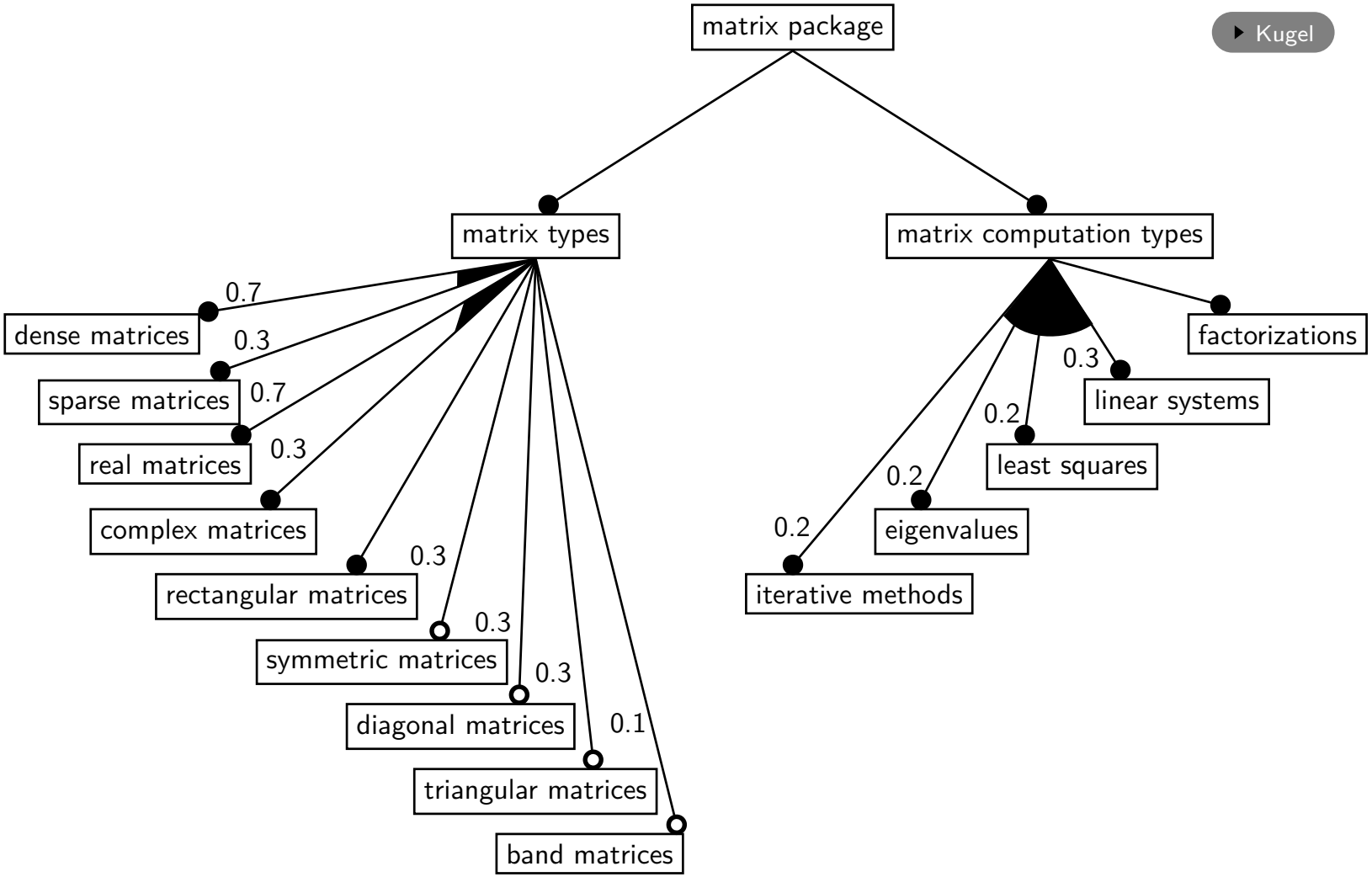
- dem Coulomb-Anteil,
- der Symmetrieenergie,
- sowie einem Paarbildungsbeitrag.



Baumstrukturen I

Beispiele


```
\makeatletter
\def\MyNodeA{\@ifnextchar[{\MyNodeA@i}{\MyNodeA@i[]}}
\def\MyNodeA@i[#1]#2{\Tr[#1]{\psframebox{#2}}}
\def\MyNodeB{\@ifnextchar[{\MyNodeB@i}{\MyNodeB@i[]}}
\def\MyNodeB@i[#1]#2{\TR[#1]{\psframebox{#2}}}
\def\MyNodeC{\@ifnextchar[{\MyNodeC@i}{\MyNodeC@i[]}}
\def\MyNodeC@i[#1]#2#3{\Tr[#1]{\rnode[b]{#2}{\
  psframebox{#3}}}}
\makeatother
\pstree[arrows={-*},arrowscale=2,nodesepB=0.1]{\
  MyNodeA[ref=b]{matrix package}}{%
    \pstree[treesep=-2,levelsep=1.5] {\MyNodeC[ref=t]{
      Types}{matrix types}}{%
        \psset{levelsep=0.8,labelsep=0.1}%
        \def\pspred{Types}%
        \MyNodeB[href=-0.4]{\Rnode[href=-0.4]{Dense}{
          dense matrices}}
        \tlput[tpos=0.44]{0.7}
        \skiplevels{1}
```

```
16            \MyNodeB{\Rnode{Sparse}{sparse matrices}}
17            \tlput[tpos=0.58]{0.3}
18          \endskiplevels
19          \pspolygon*([nodesep=3.3]{\pspred}Dense)(\
              pspred)([nodesep=2.8]{\pspred}Sparse)
20          \skiplevels{2}
21            \MyNodeB[href=0.3]{\Rnode[href=0.3]{Real}{
                real matrices}}
22            \tlput[tpos=0.65]{0.7}
23          \endskiplevels
24          \skiplevels{3}
25            \MyNodeB[href=0.3]{\Rnode[href=0.3]{
                Complex}{complex matrices}}
26            \tlput[tpos=0.7]{0.3}
27          \endskiplevels
28          \pspolygon*([nodesep=2.75]{\pspred}Real)(\
              pspred)([nodesep=2.3]{\pspred}Complex)
29          \skiplevels{4}
30            \MyNodeB[href=0.4]{rectangular matrices}
31          \endskiplevels
```

```
32          \psset{arrows={-o},tpos=0.78}%
33          \skiplevels{5}
34              \MyNodeB[href=0.4]{symmetric matrices}
35              \tlput[tpos=0.74]{0.3}
36          \endskiplevels
37          \skiplevels{6}
38              \MyNodeB[href=0.5]{diagonal matrices}
39              \tlput{0.3}
40          \endskiplevels
41          \skiplevels{7}
42              \MyNodeB[href=0.5]{triangular matrices}
43              \tlput{0.3}
44          \endskiplevels
45          \skiplevels{8}
46              \MyNodeB[href=1]{band matrices}
47              \tlput[labelsep=0]{0.1}
48          \endskiplevels
49          \tspace{6}\Tn%
50      }
51      \pstree[treesep=-3.5,levelsep=1.5]%
```

Baumstrukturen IV

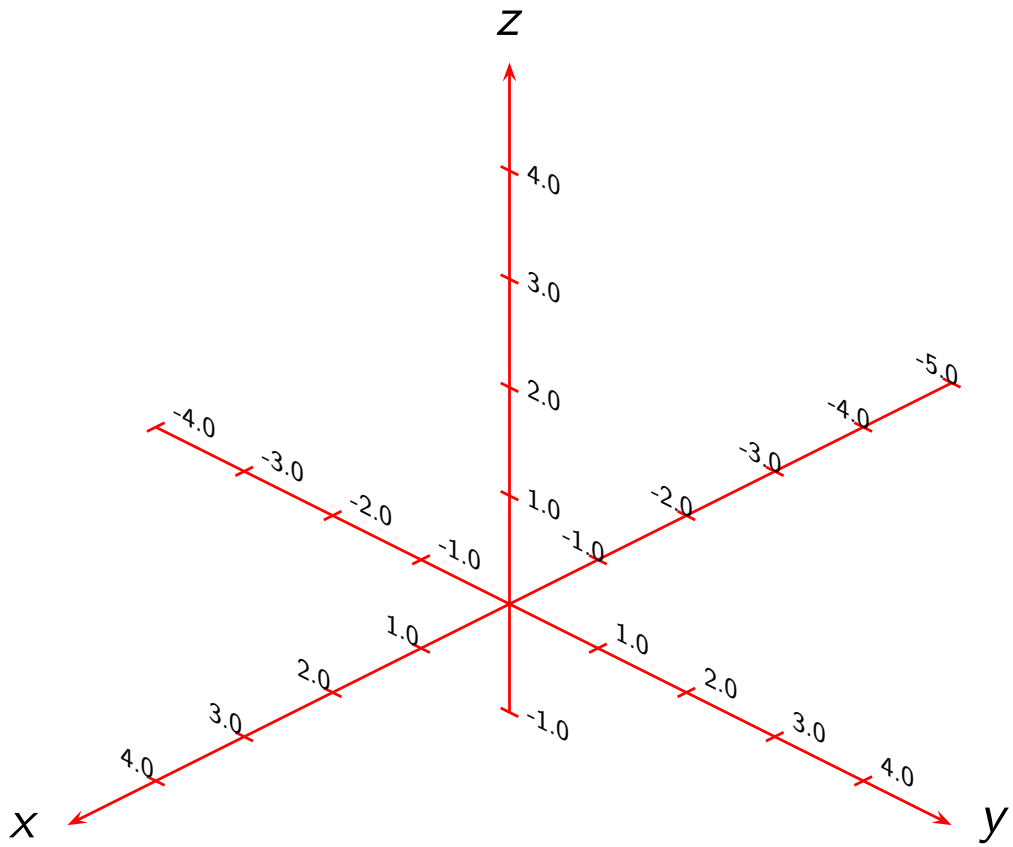
Beispiele


```
52          {\MyNodeC[ref=t]{Computation}{matrix computation
               types}}{%
53            \def\pspred{Computation}%
54            \MyNodeB[href=0.6]{factorizations}
55            \psset{levelsep=0.8,labelsep=0.05,tpos=0.8}%
56            \skiplevels{1}
57                \MyNodeB[href=-0.4]{%
58                \Rnode[href=-0.4]{Linear}{linear systems}}
59                \tlput[tpos=0.7]{0.3}
60            \endskiplevels
61            \skiplevels{2}
62                \MyNodeB[href=-0.6]{least squares}
63                \tlput[tpos=0.75]{0.2}
64            \endskiplevels
65            \skiplevels{3}
66                \MyNodeB[href=-0.6]{eigenvalues}
67                \tlput{0.2}
68            \endskiplevels
69            \skiplevels{4}
70                \MyNodeB[href=-0.8]{%
```

```
71                \Rnode[href=-0.8]{Iterative}{iterative
                    methods}}
72                \tlput{0.2}
73            \endskiplevels
74            \pnode([nodesep=0.8]{\pspred}Linear){LinearB}
75            \pnode([nodesep=3.3]{\pspred}Iterative){
                IterativeB}
76            \pscustom*[arrows=-]{%
77                \psline(IterativeB)(\pspred)(LinearB)
78                \ncarc[arcangle=40]{LinearB}{IterativeB}%
79            }%
80        }%
81    }
```

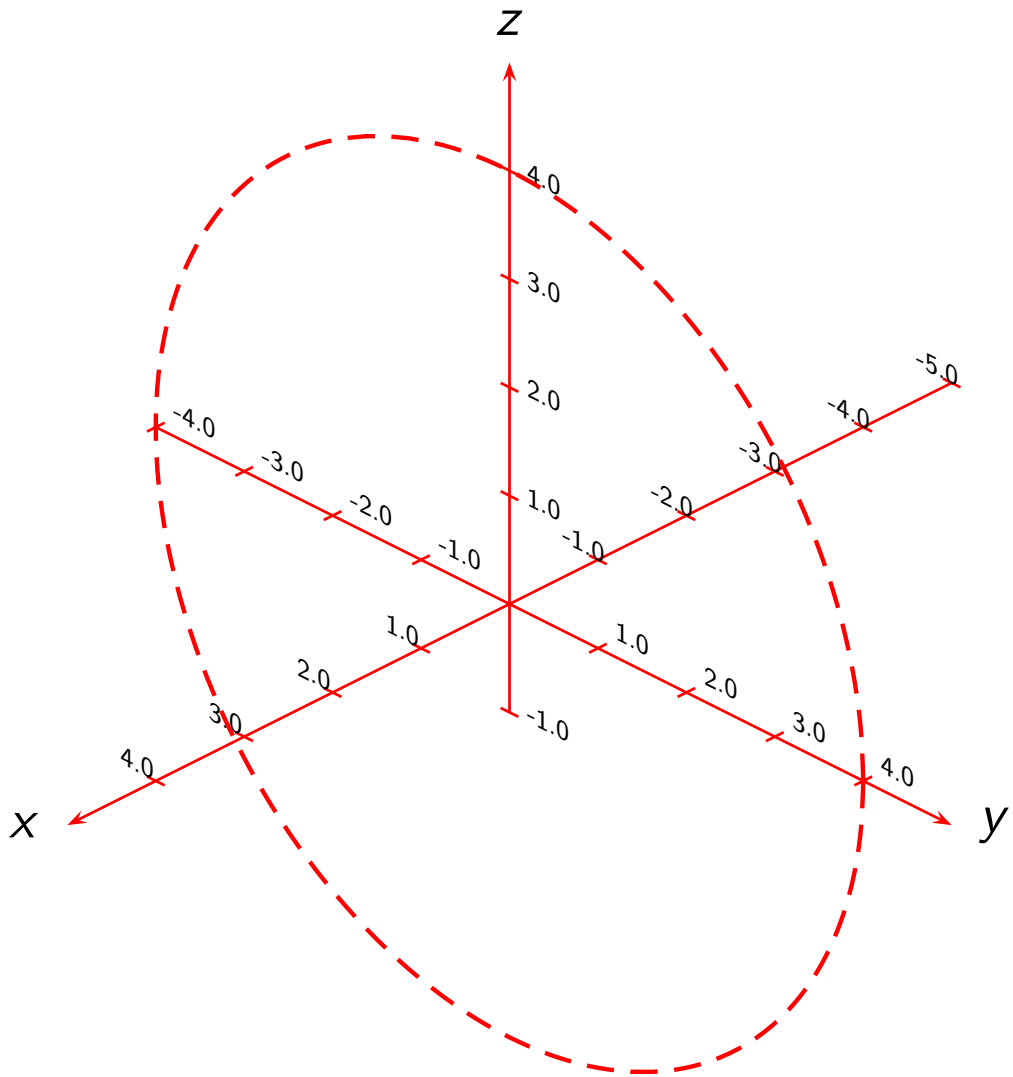

▸ Zurück

▸ Quellcode



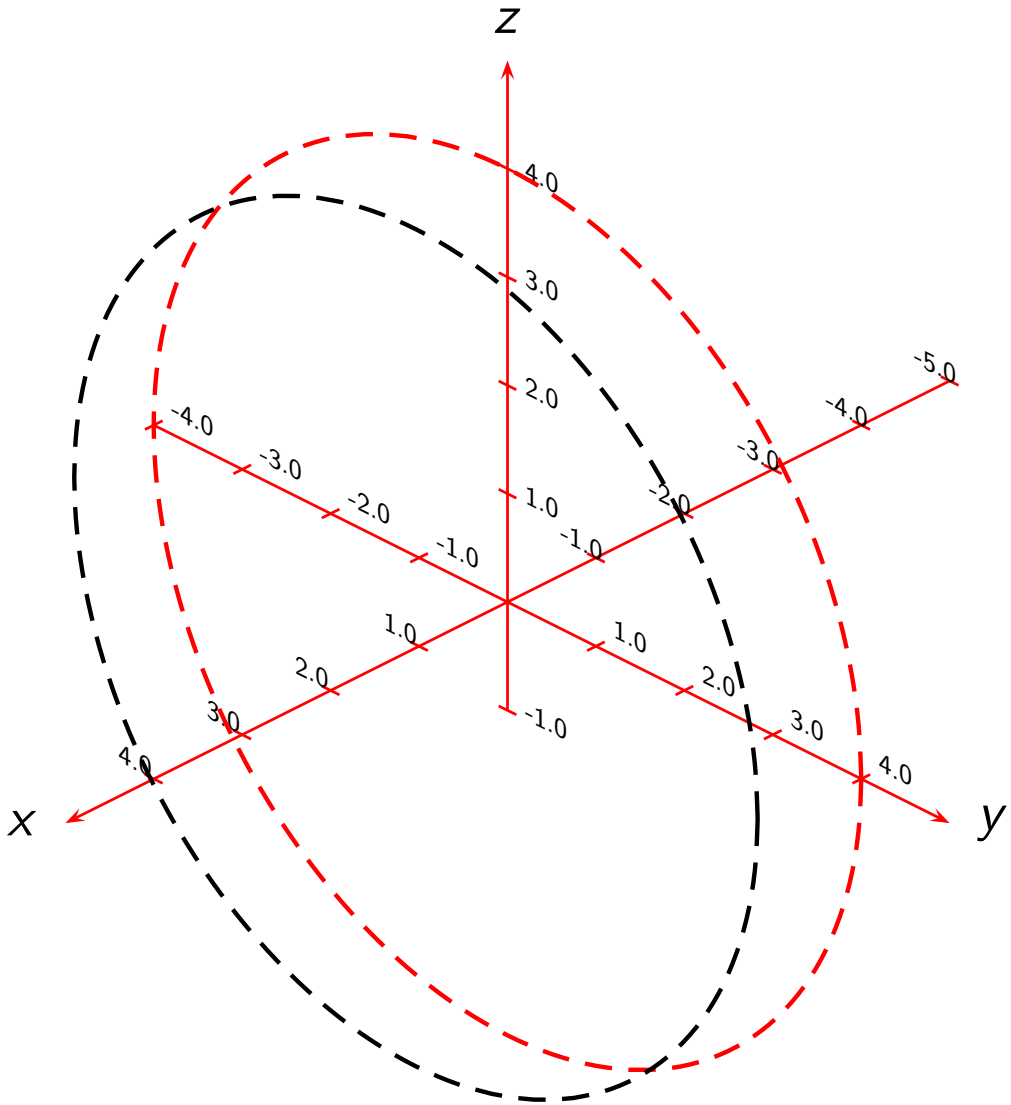
pst-3dplot

▸ Quellcode



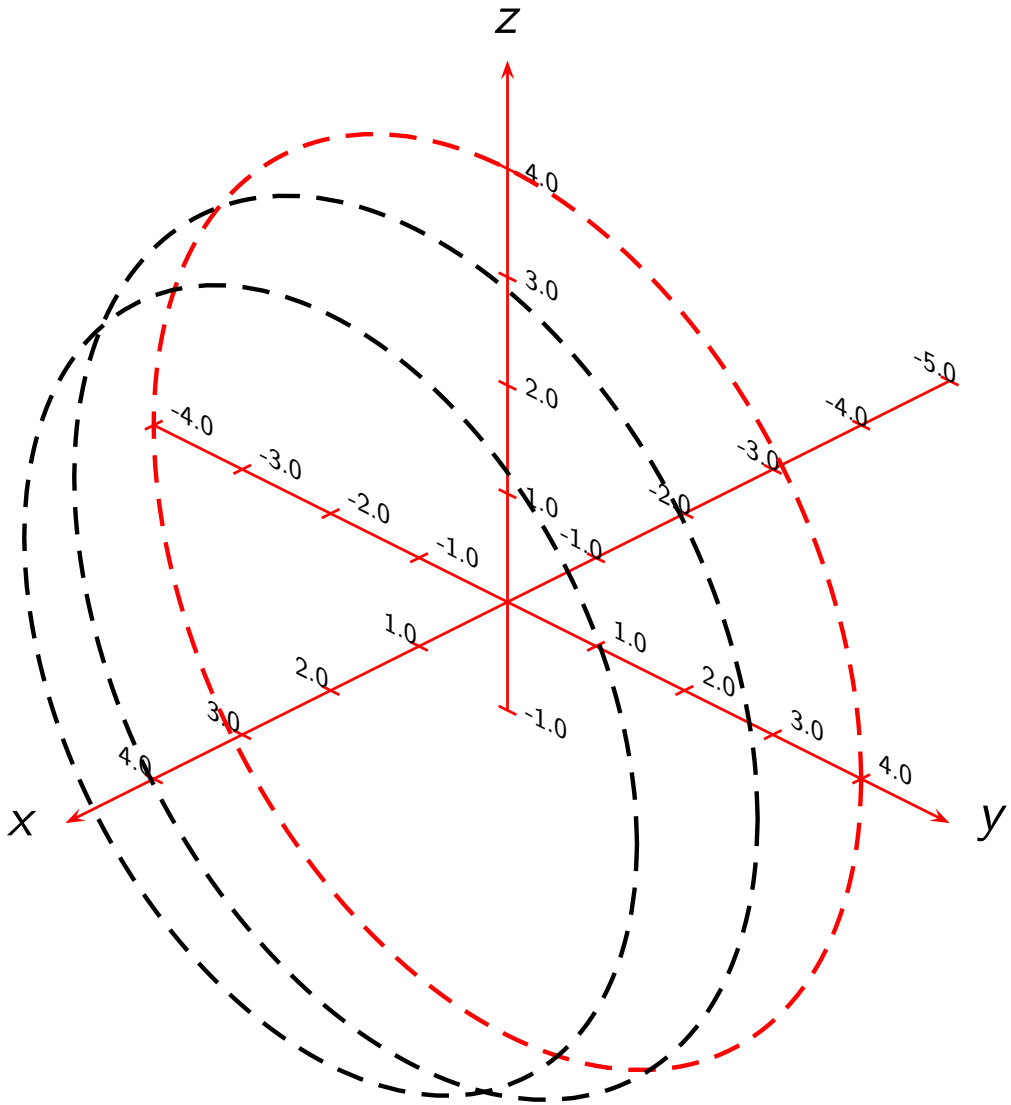
pst-3dplot

▸ Quellcode



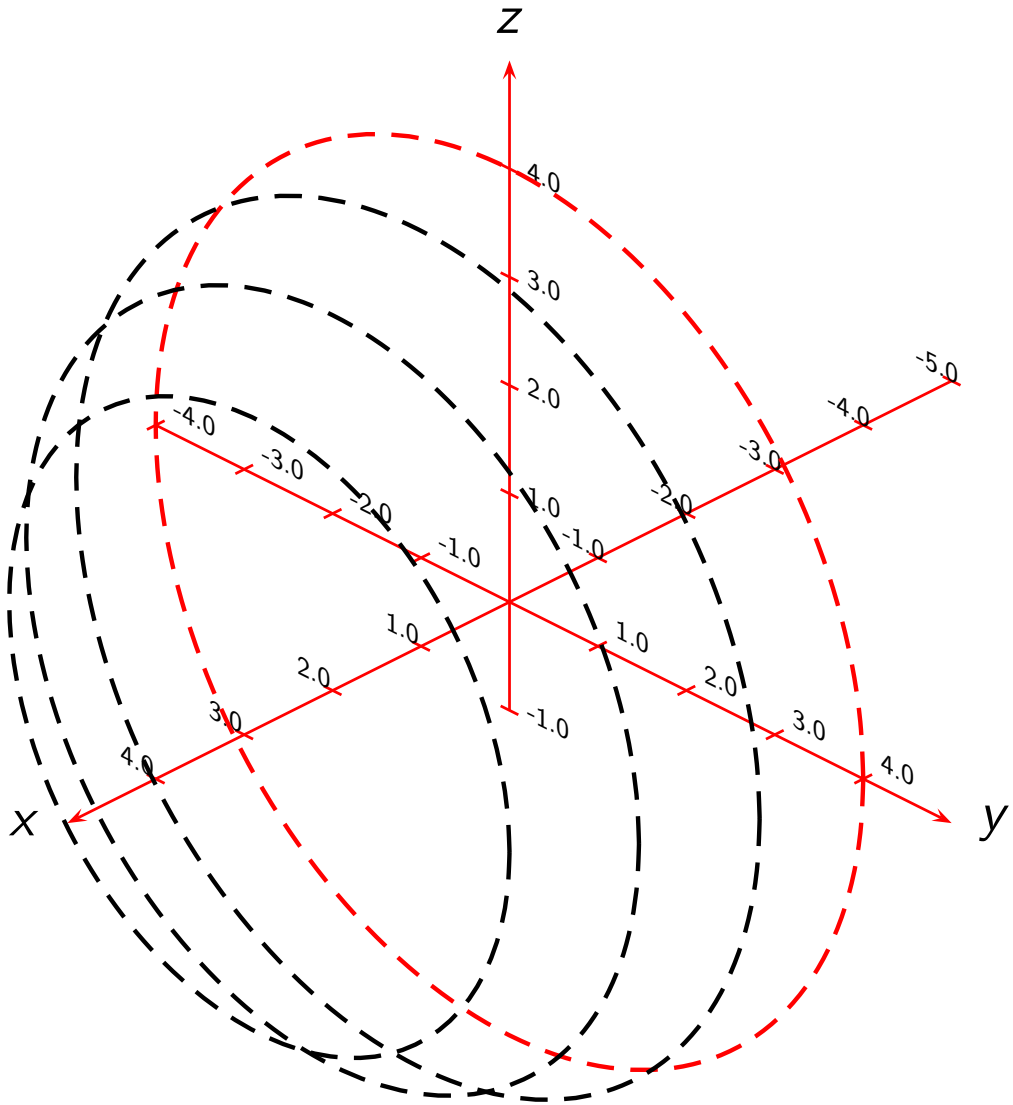
pst-3dplot

▸ Quellcode



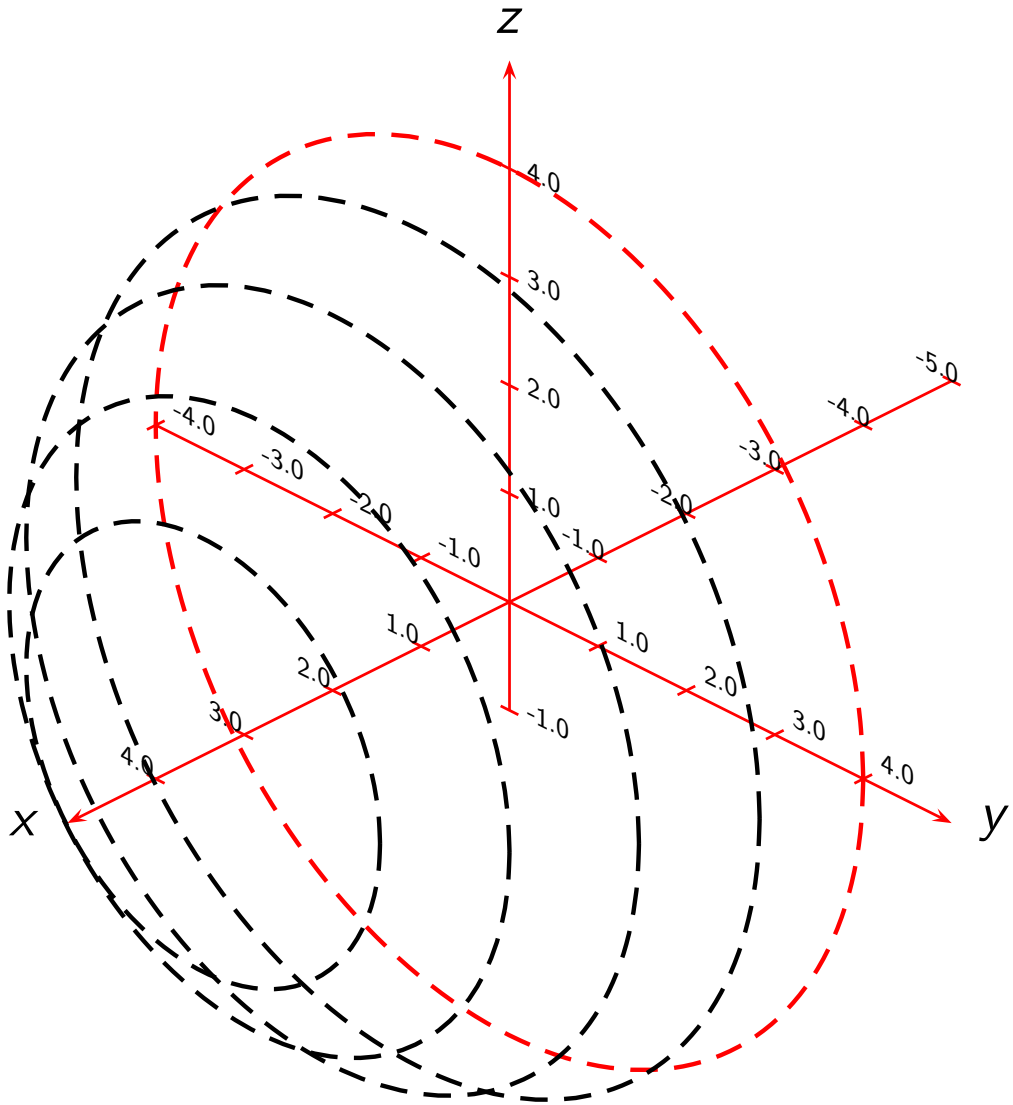
pst-3dplot

▸ Quellcode



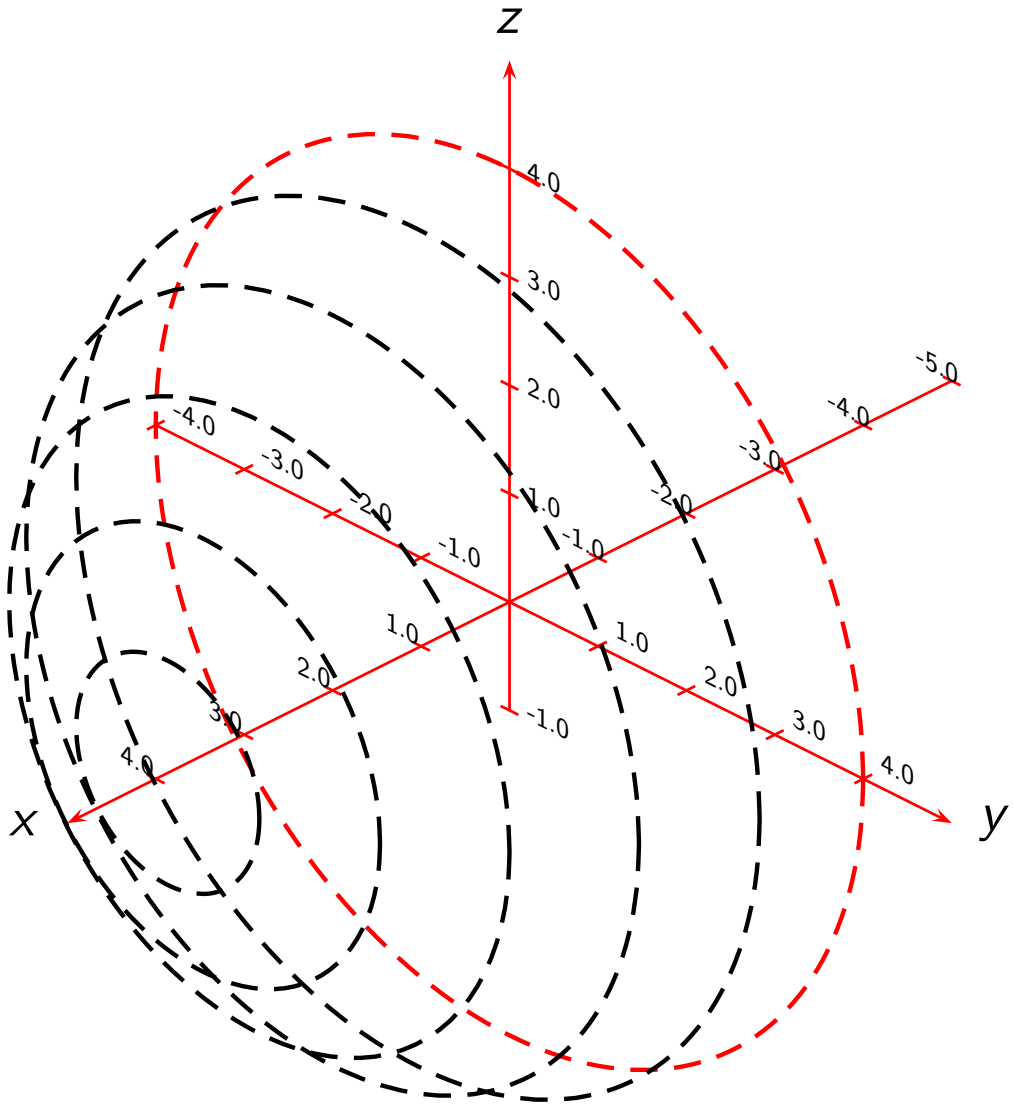
pst-3dplot

▸ Quellcode



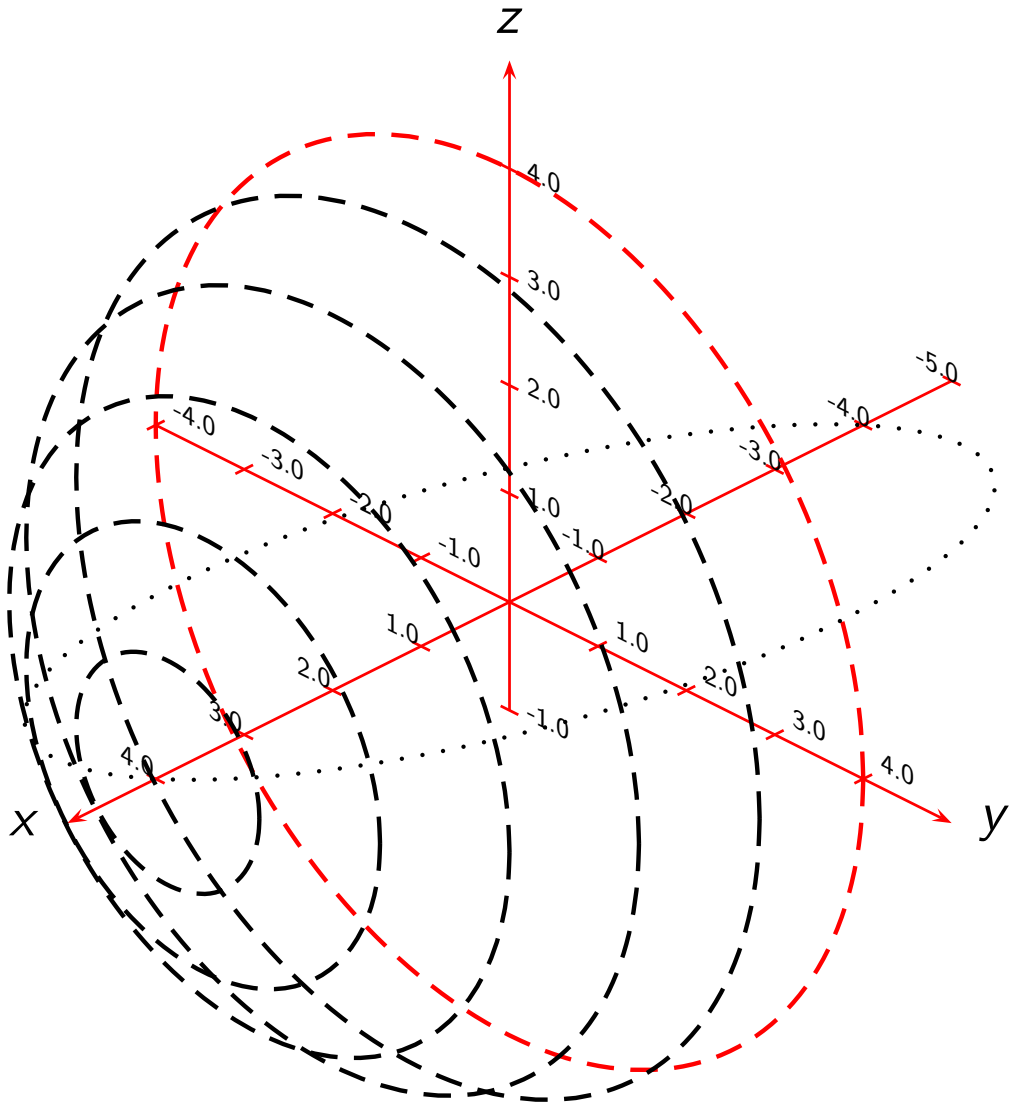
pst-3dplot

▸ Quellcode



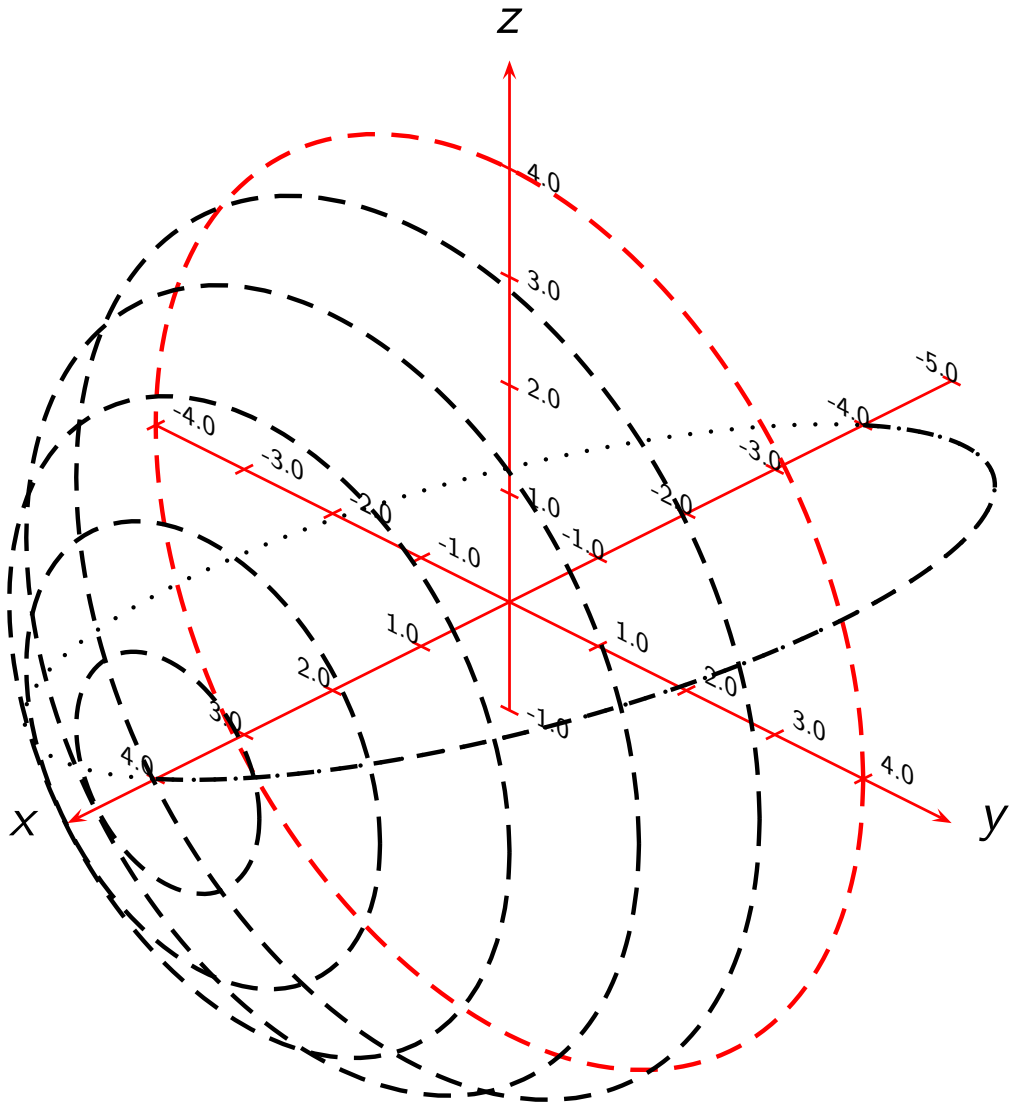
pst-3dplot

▸ Quellcode



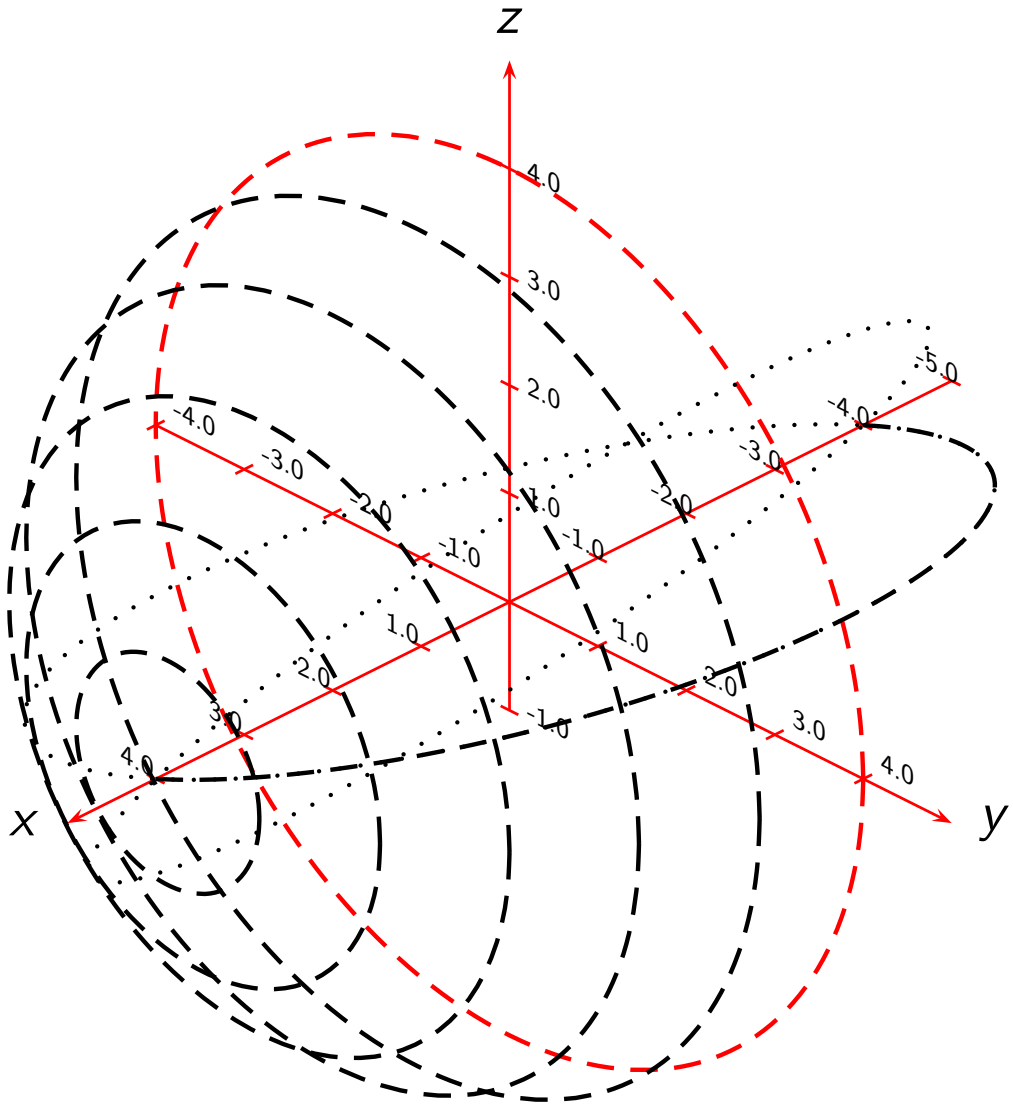
pst-3dplot

▸ Quellcode



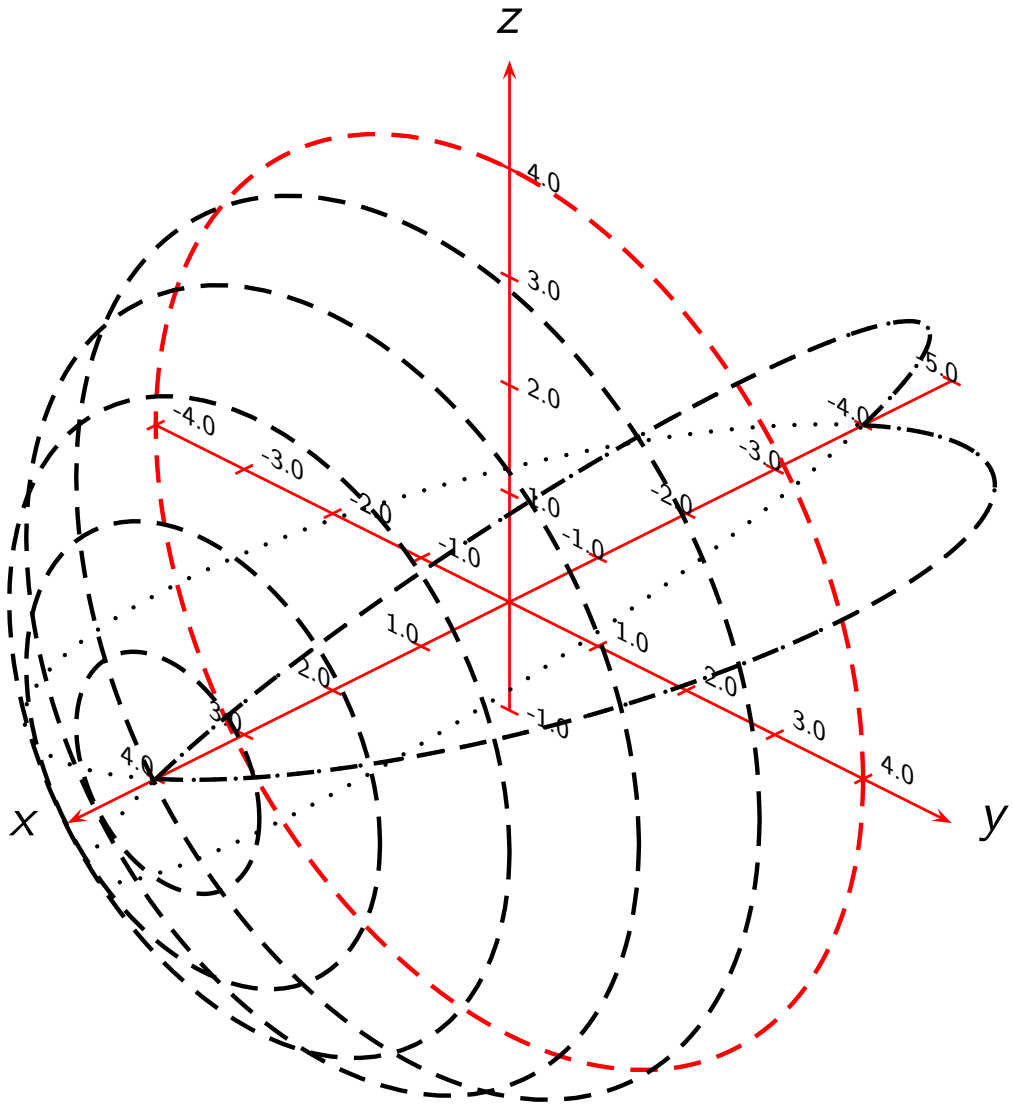
pst-3dplot

▸ Quellcode



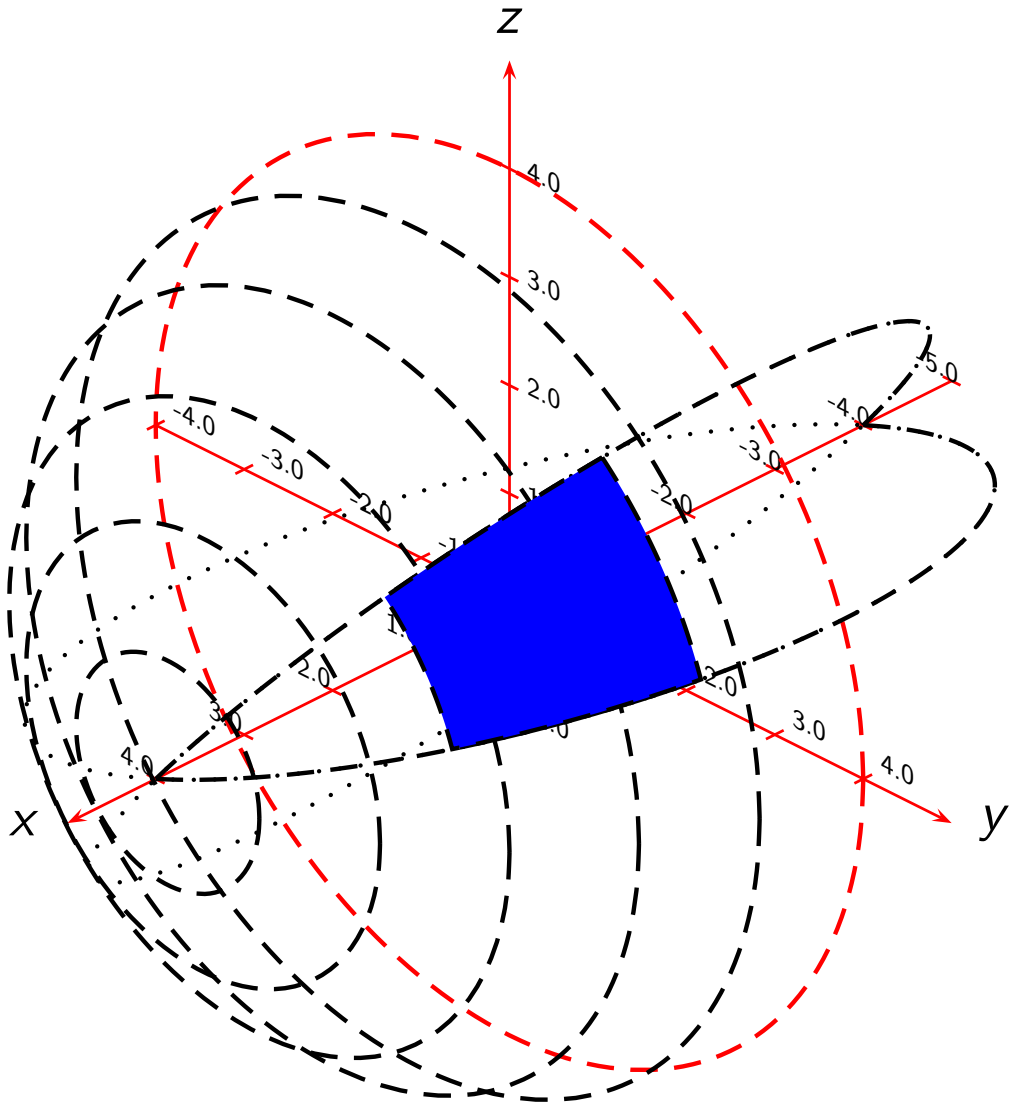
pst-3dplot

▸ Quellcode

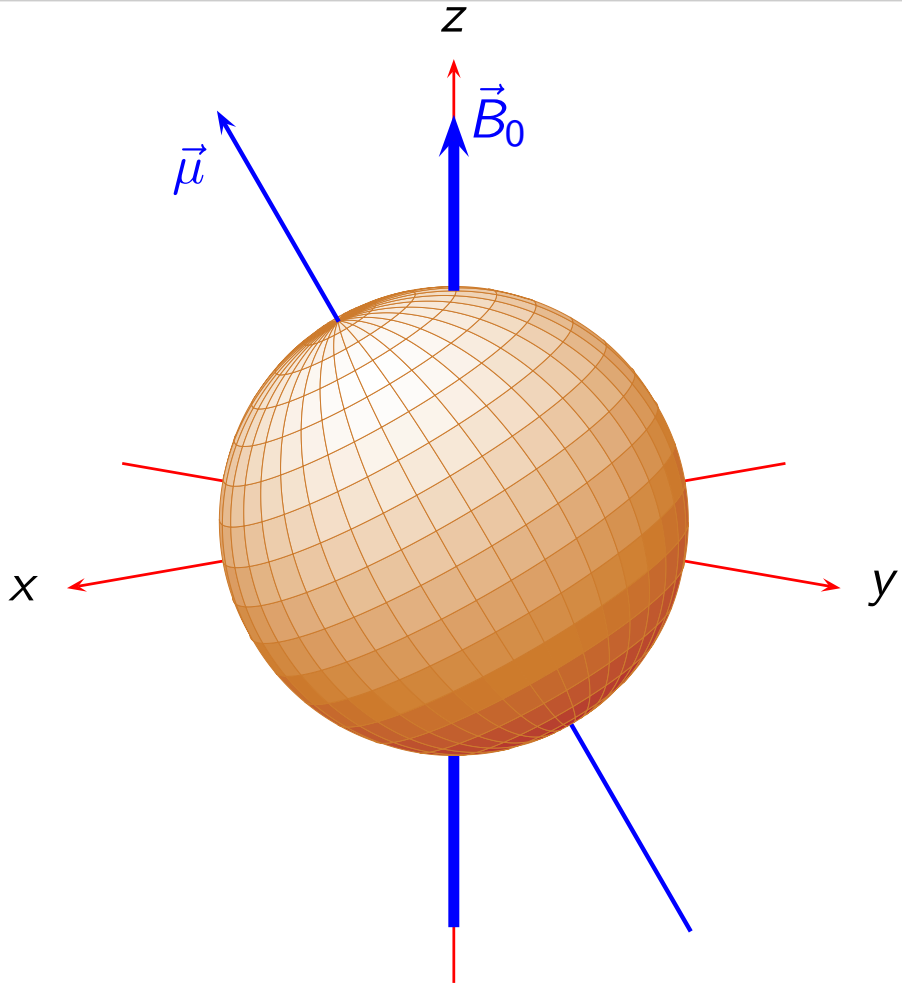


pst-3dplot

▸ Quellcode



pst-3dplot



▸ Quellcode

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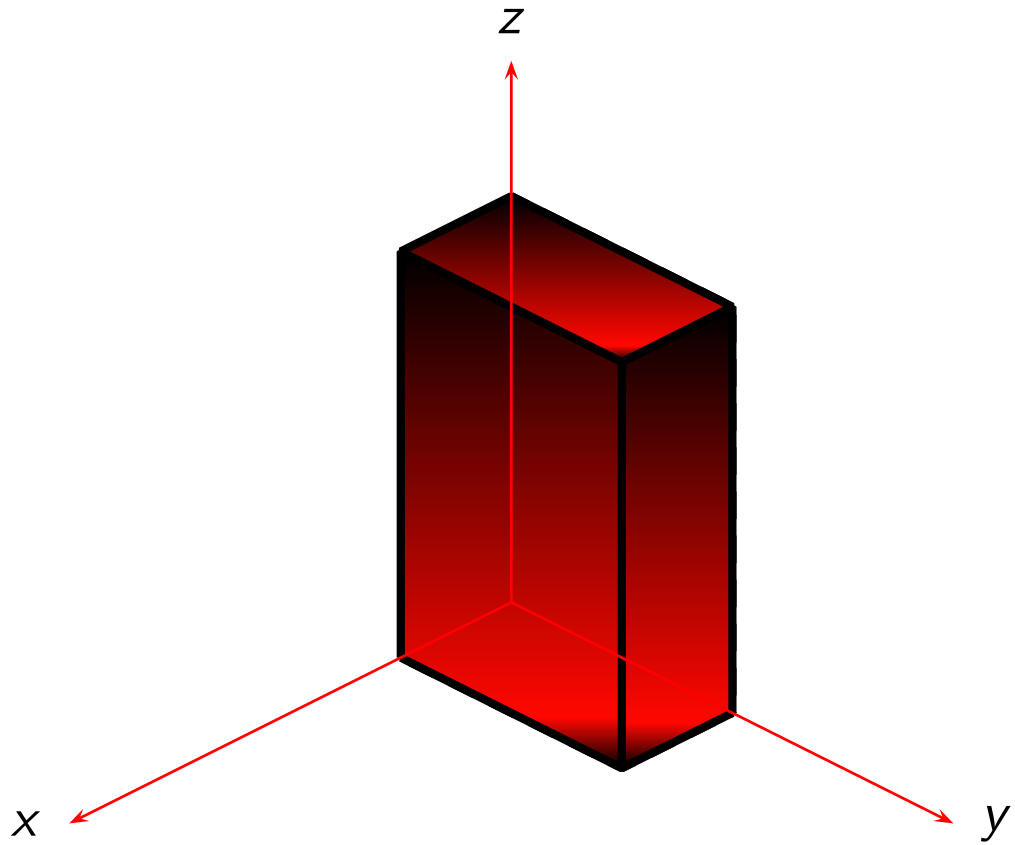

▸ Quellcode

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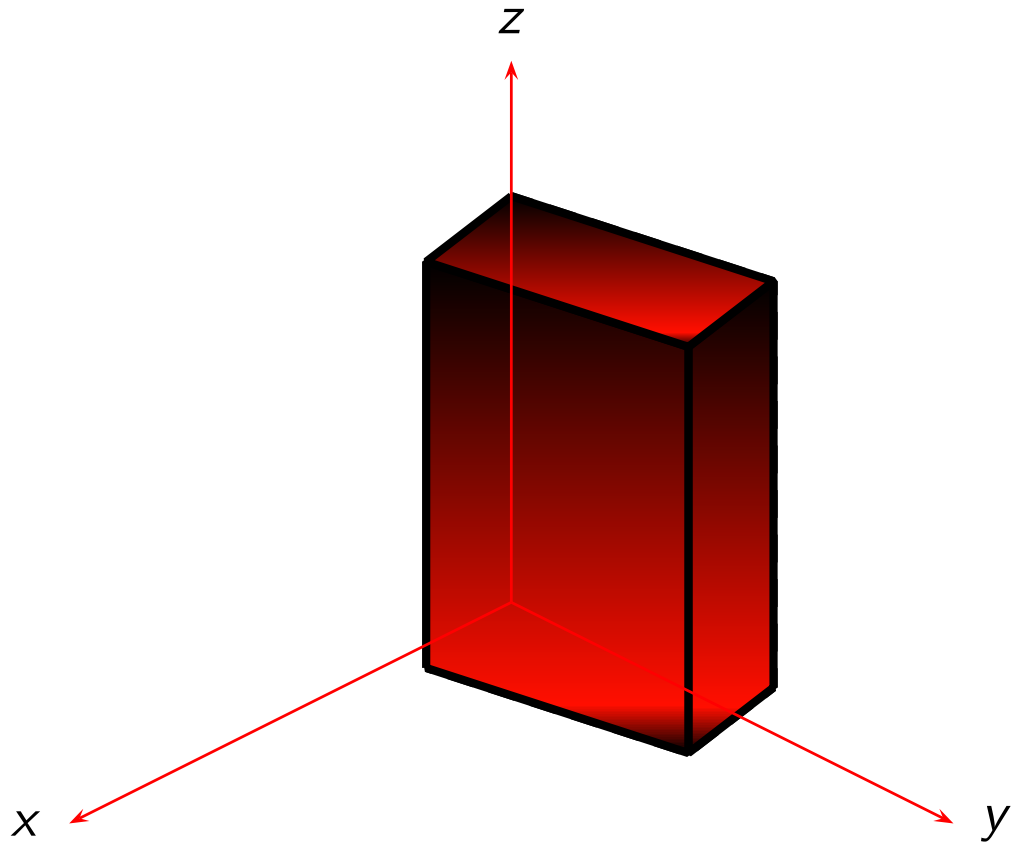
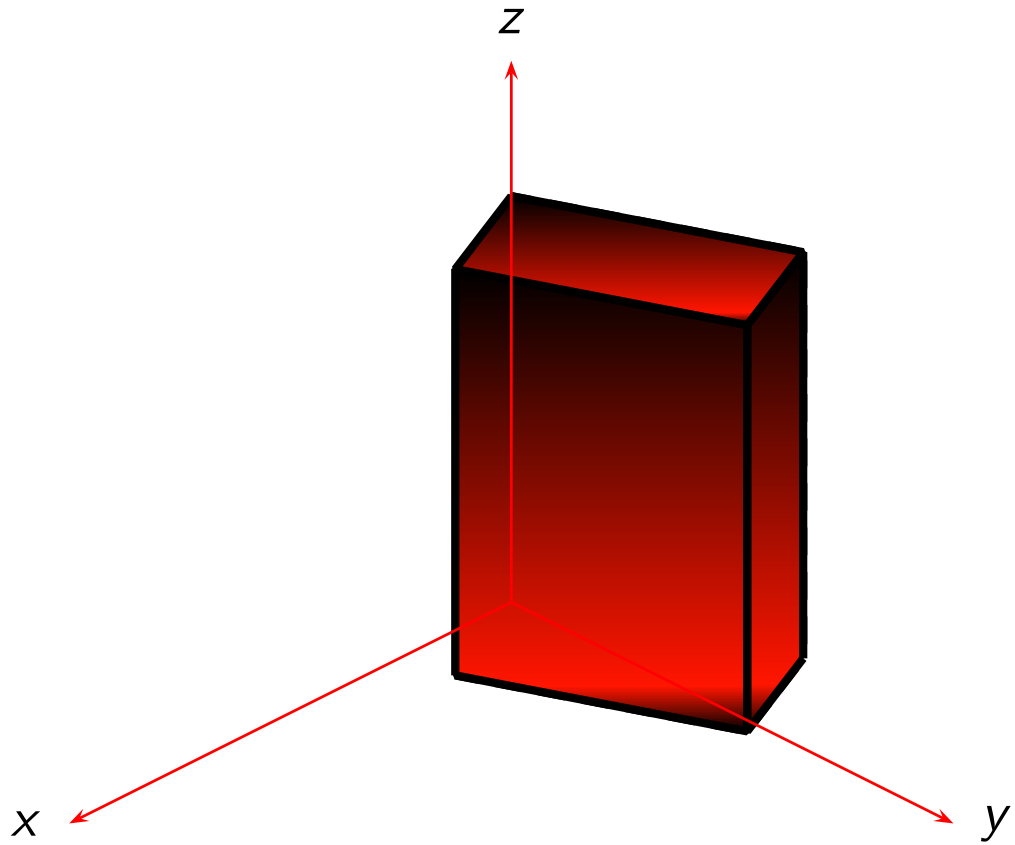


▸ Quellcode

pst-3dplot



▸ Quellcode

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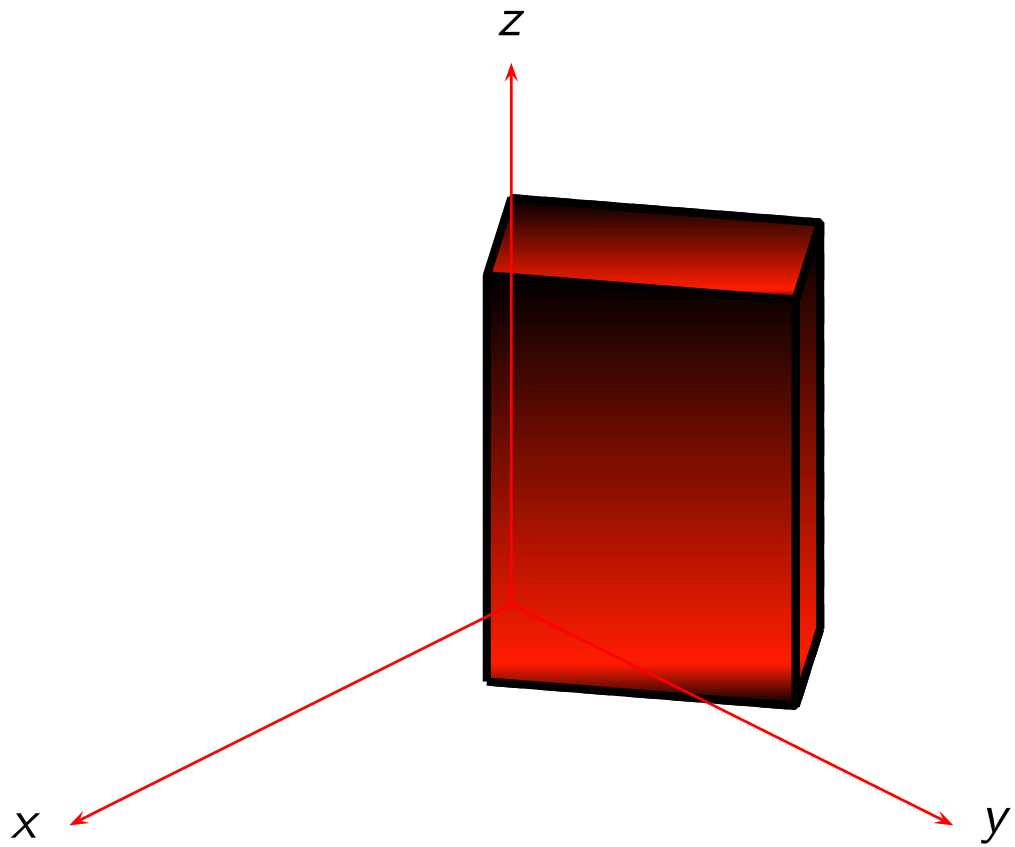

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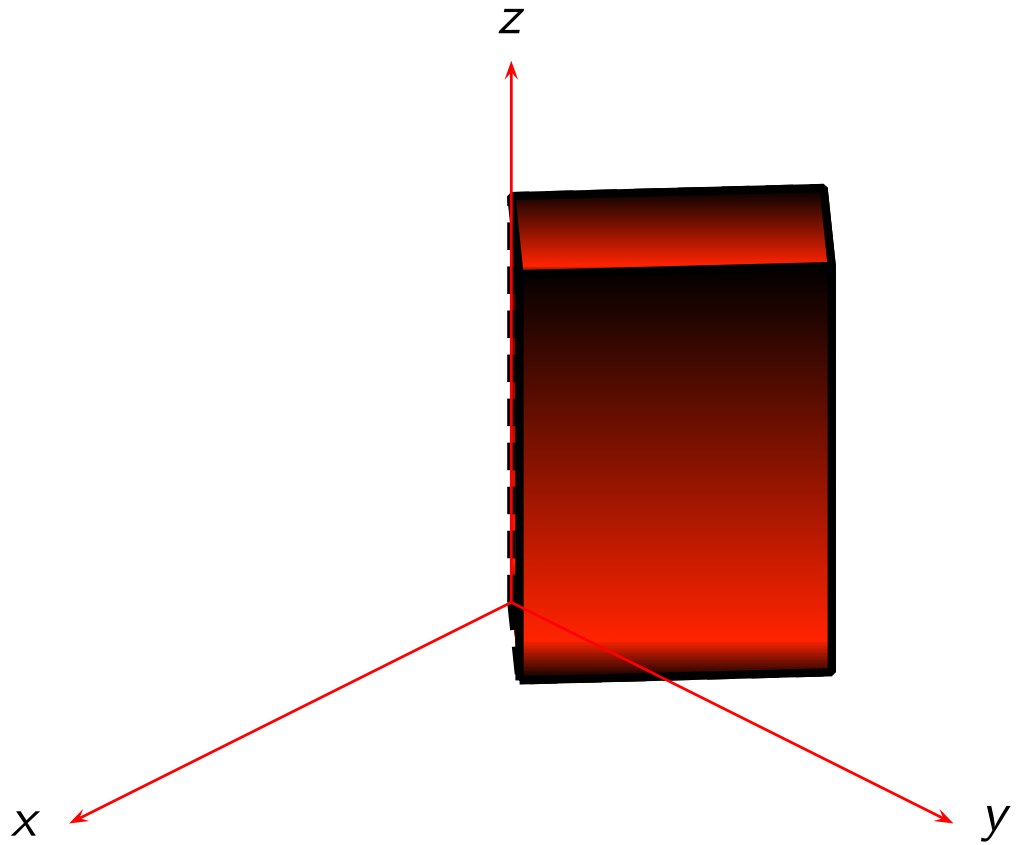

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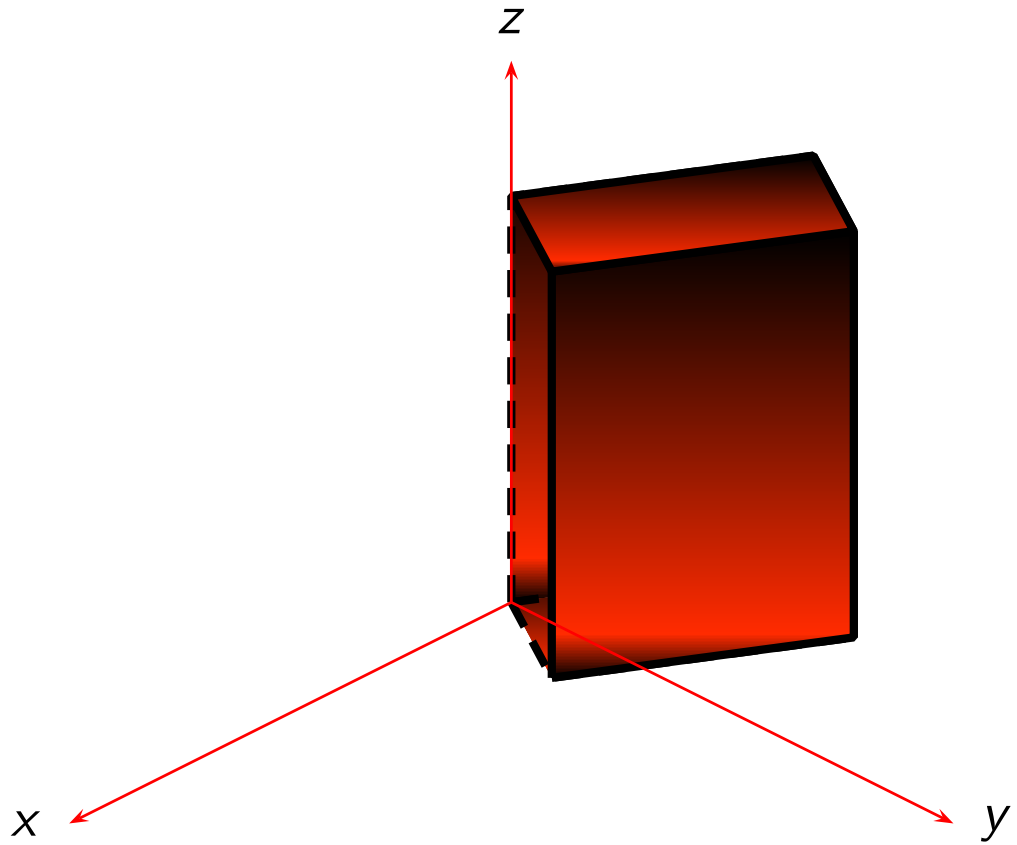
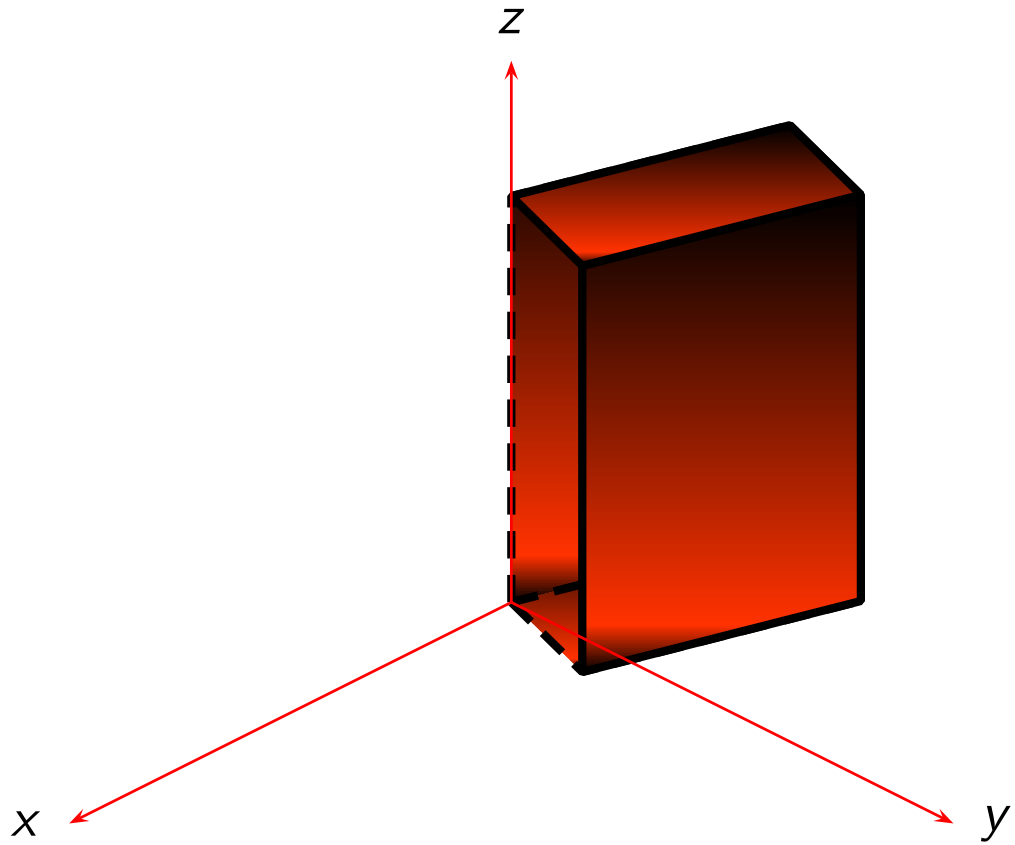


▶ Quellcode

pst-3dplot



▸ Quellcode

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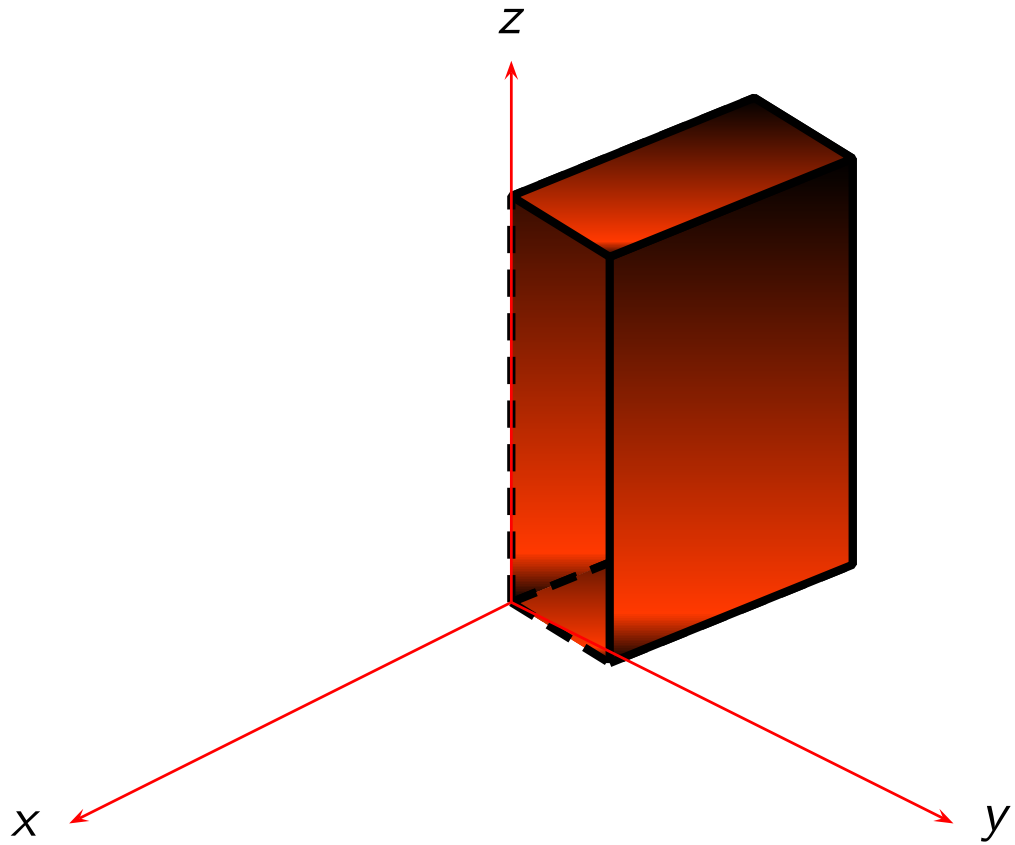

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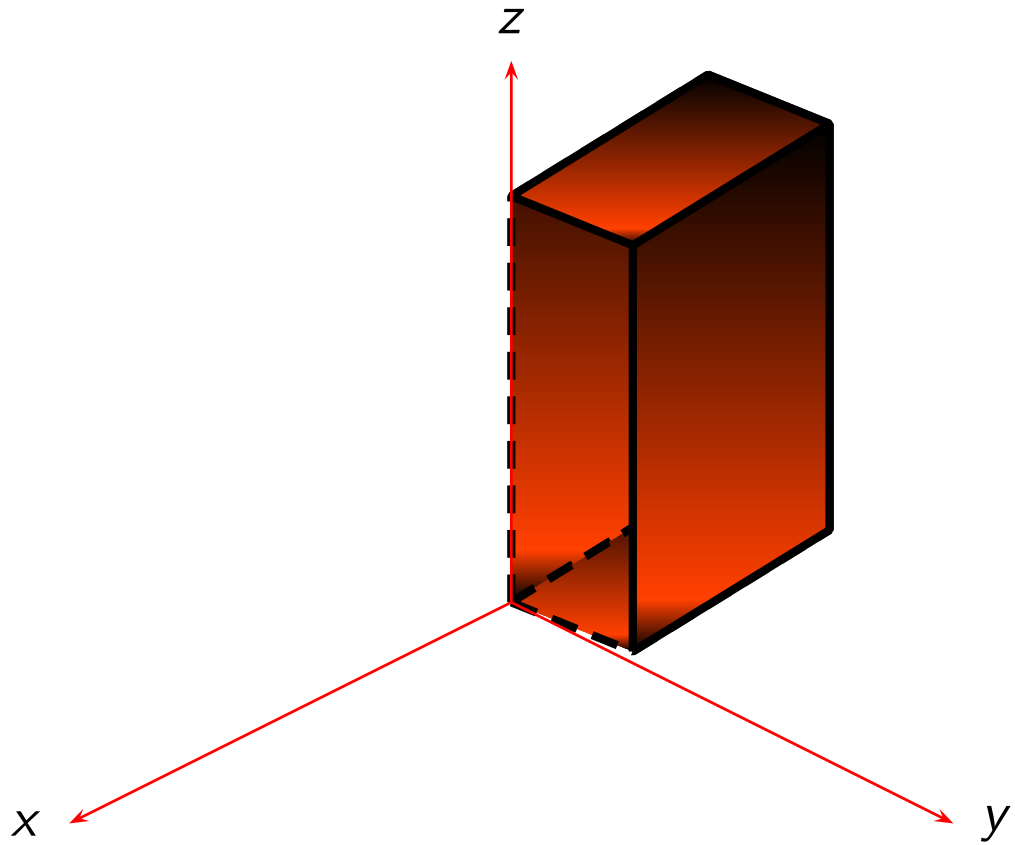

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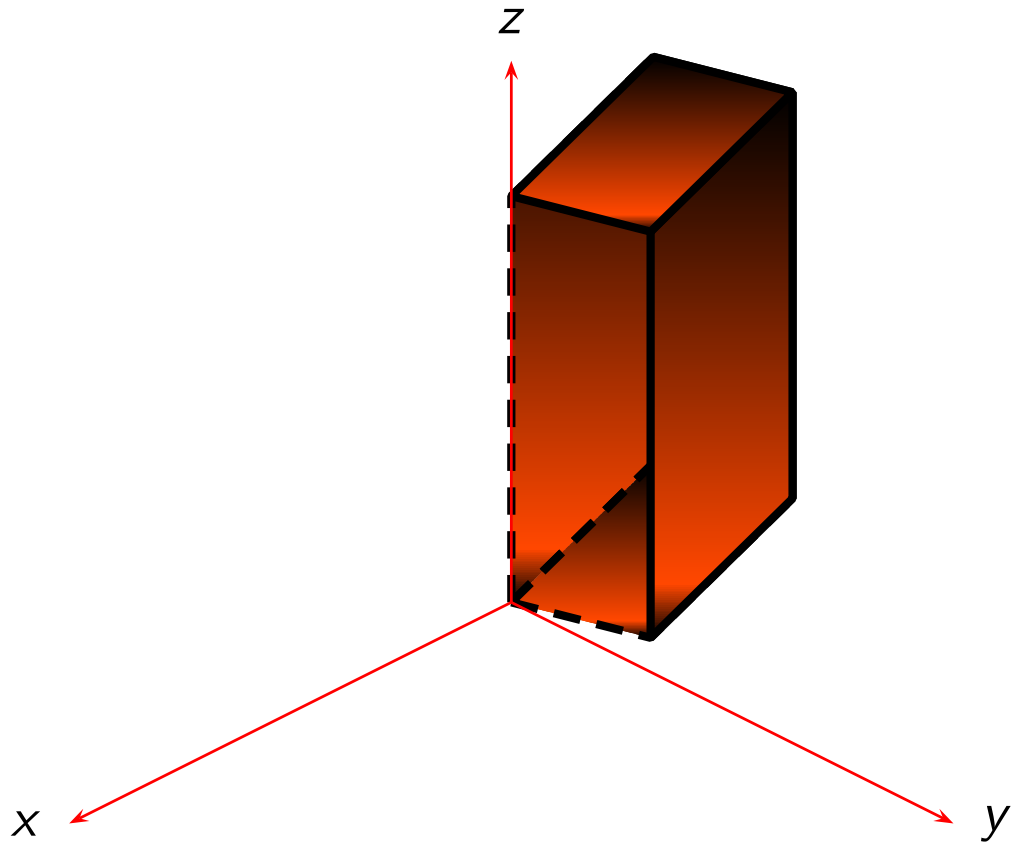

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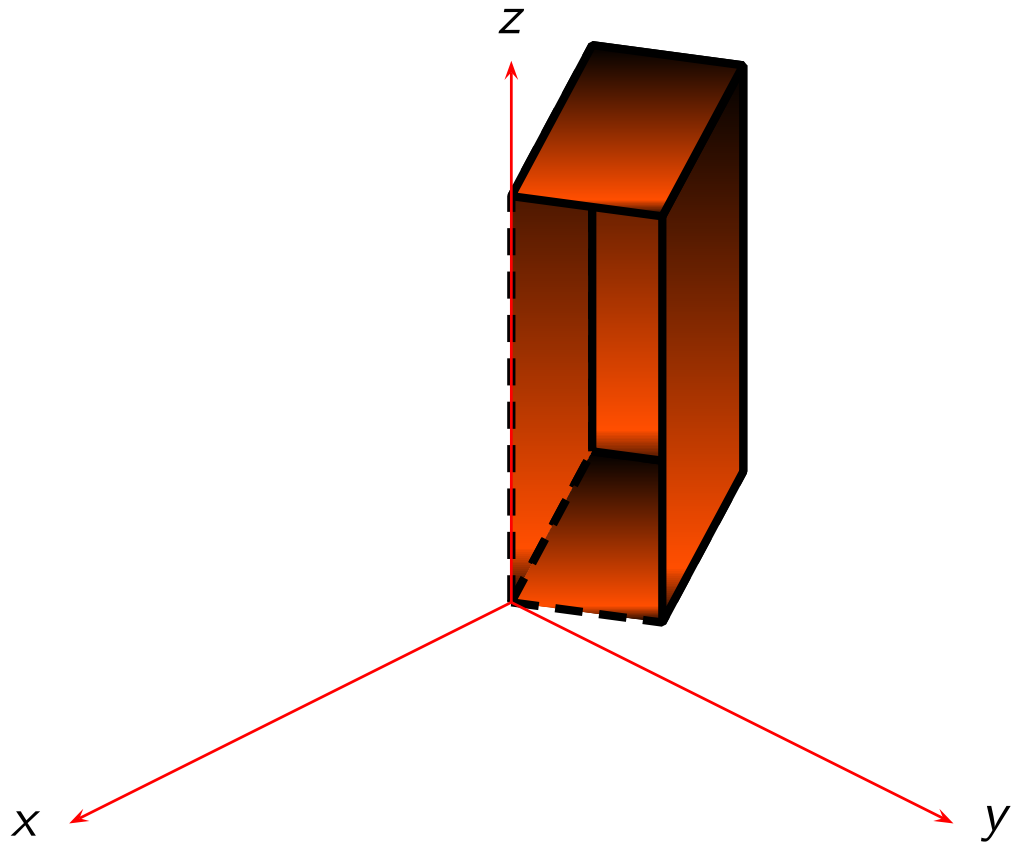

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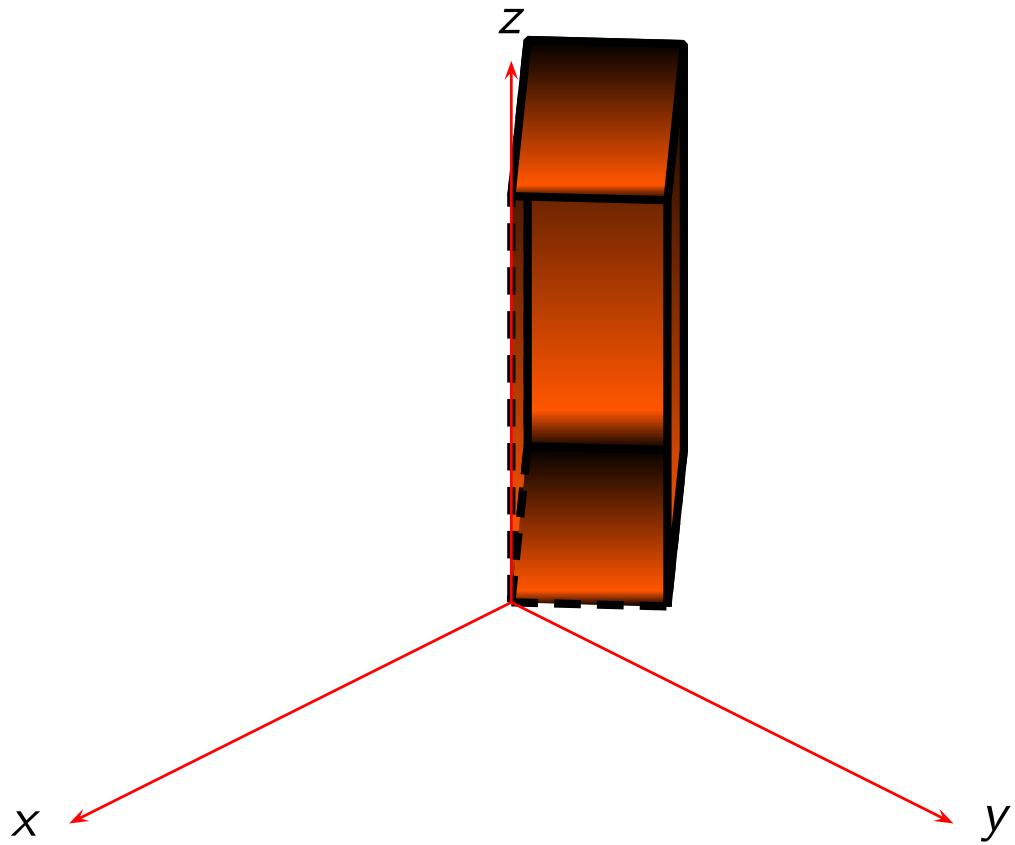

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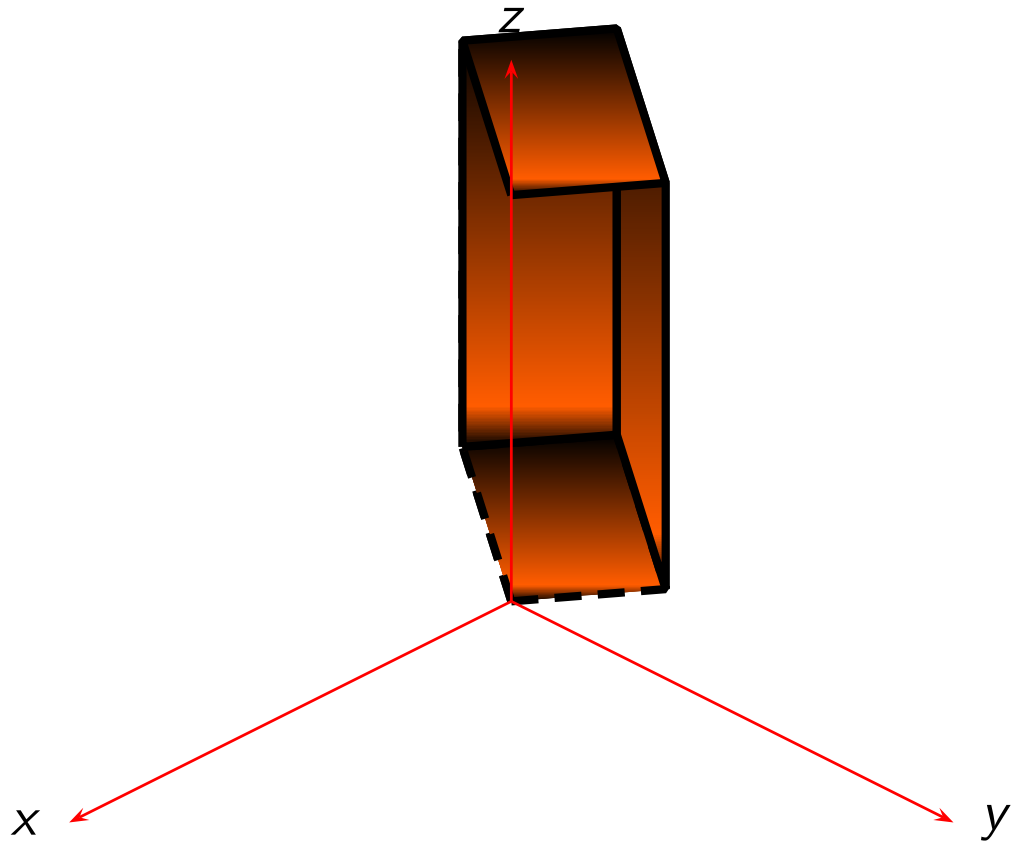
pst-3dplot



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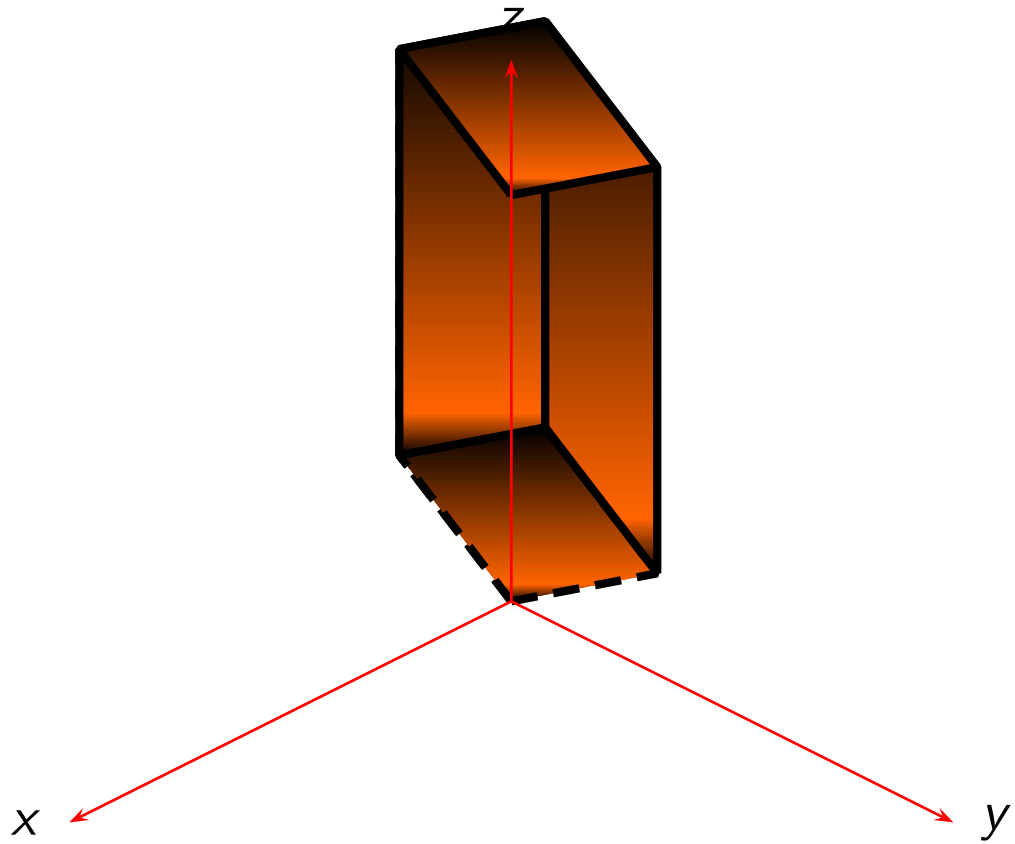

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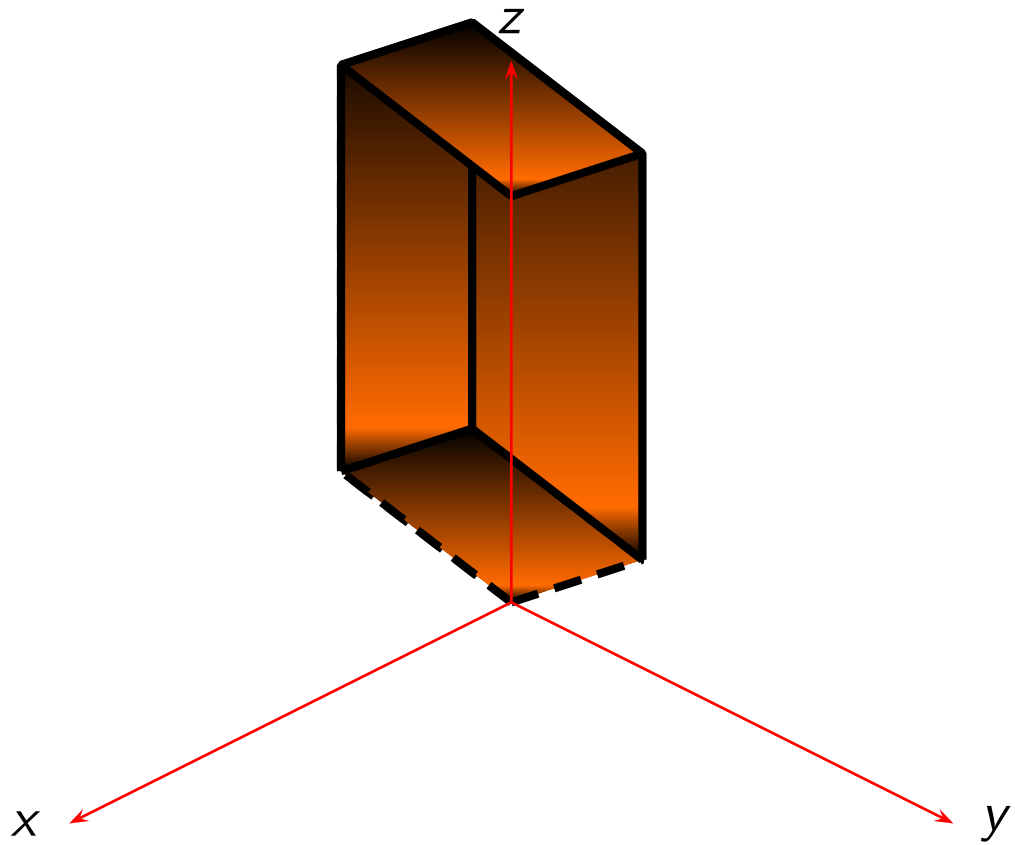

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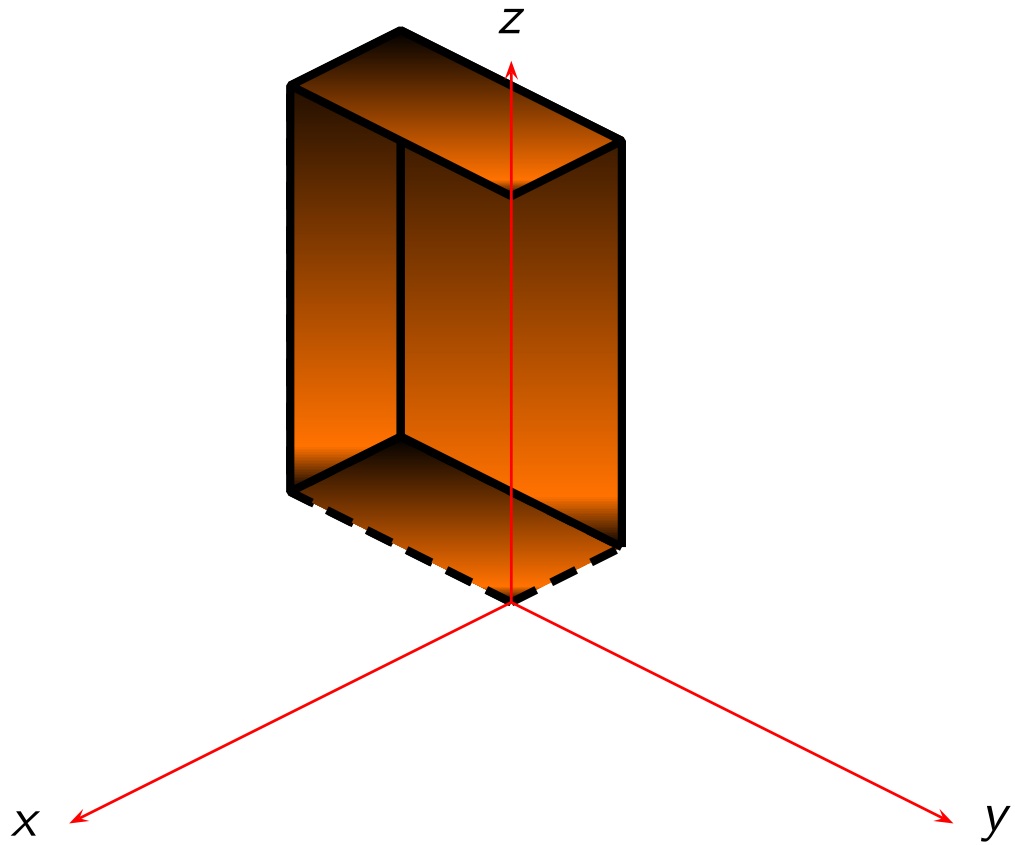
pst-3dplot



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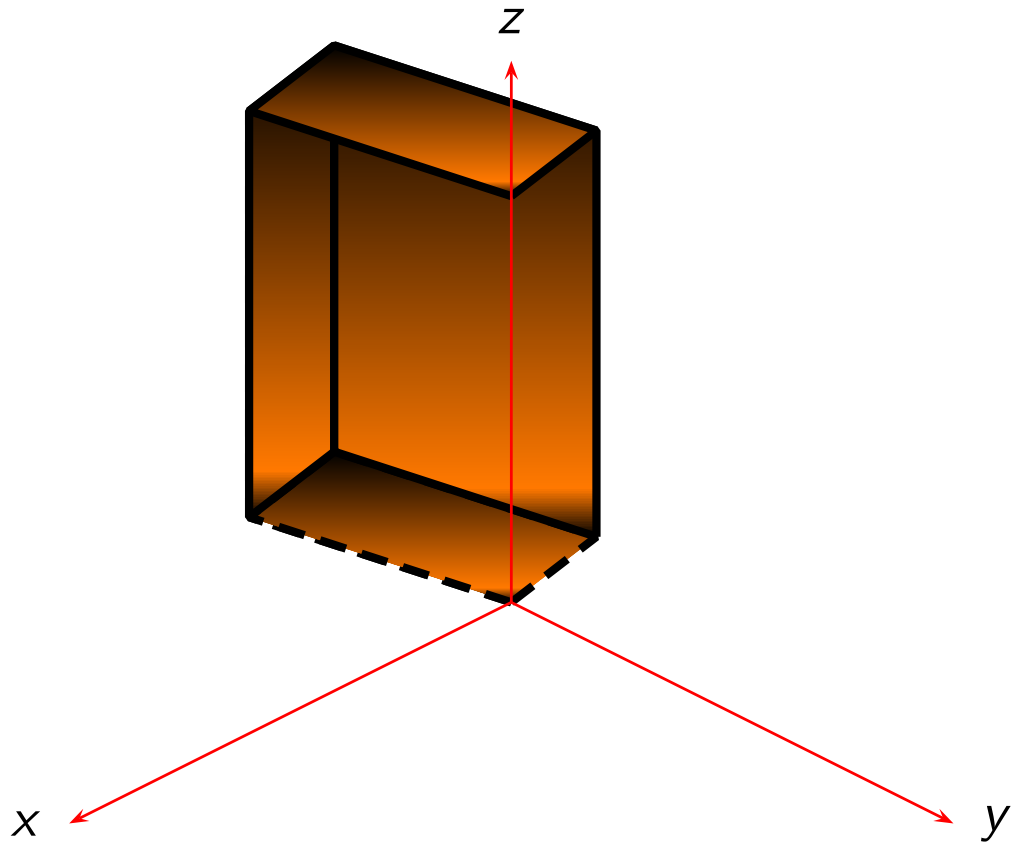
pst-3dplot



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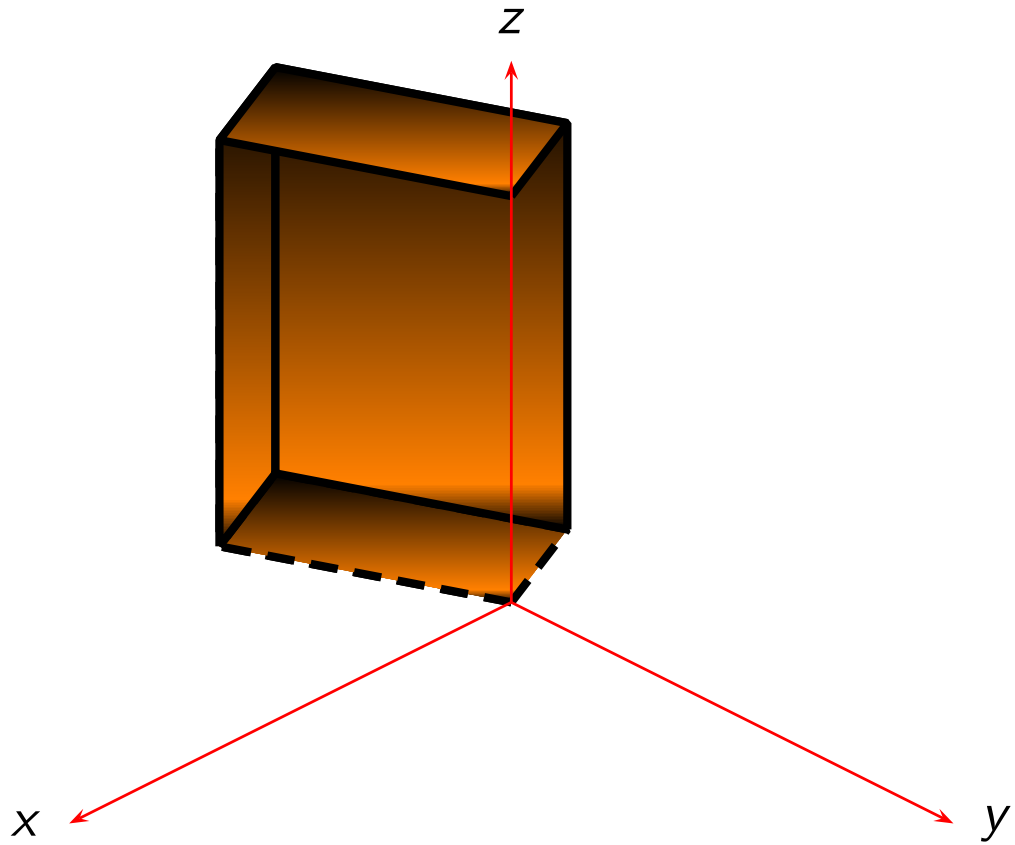
pst-3dplot



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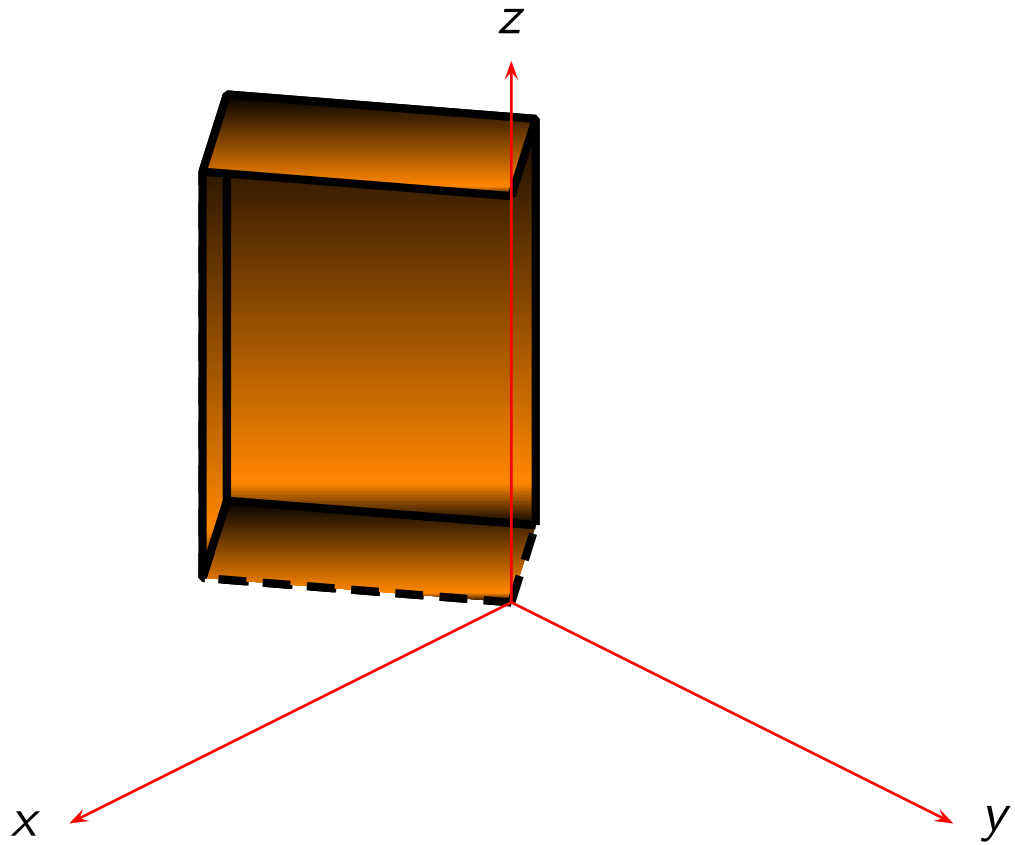

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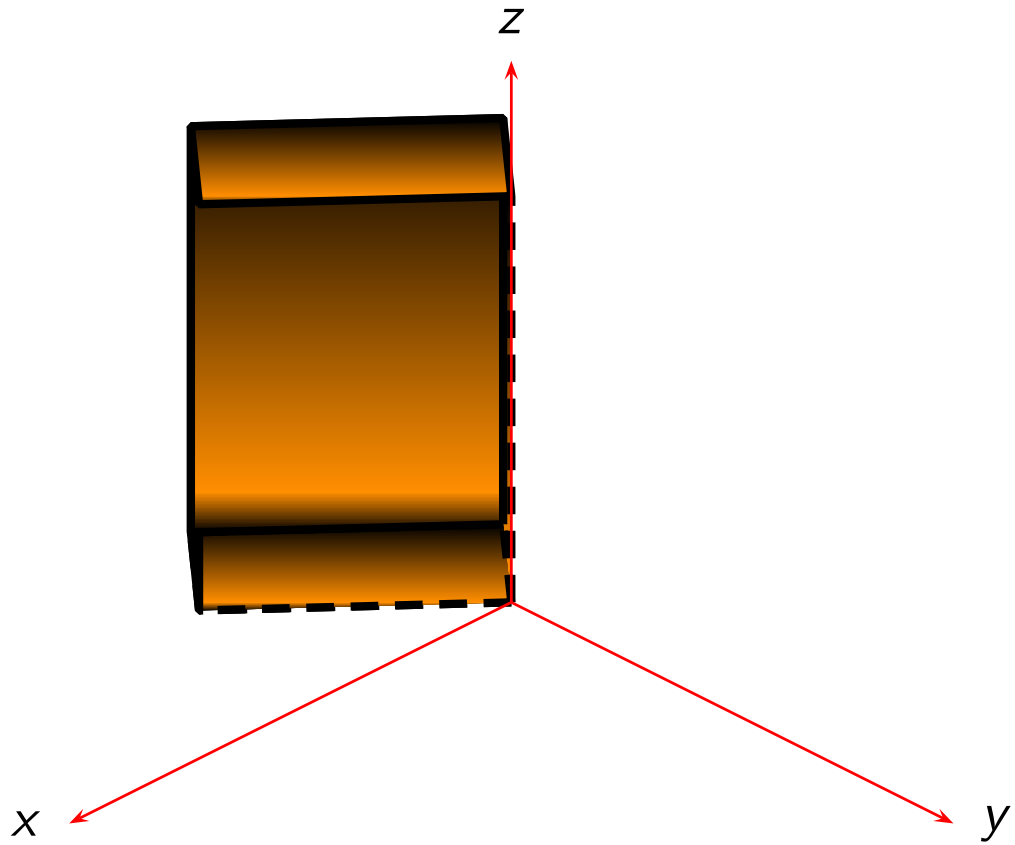
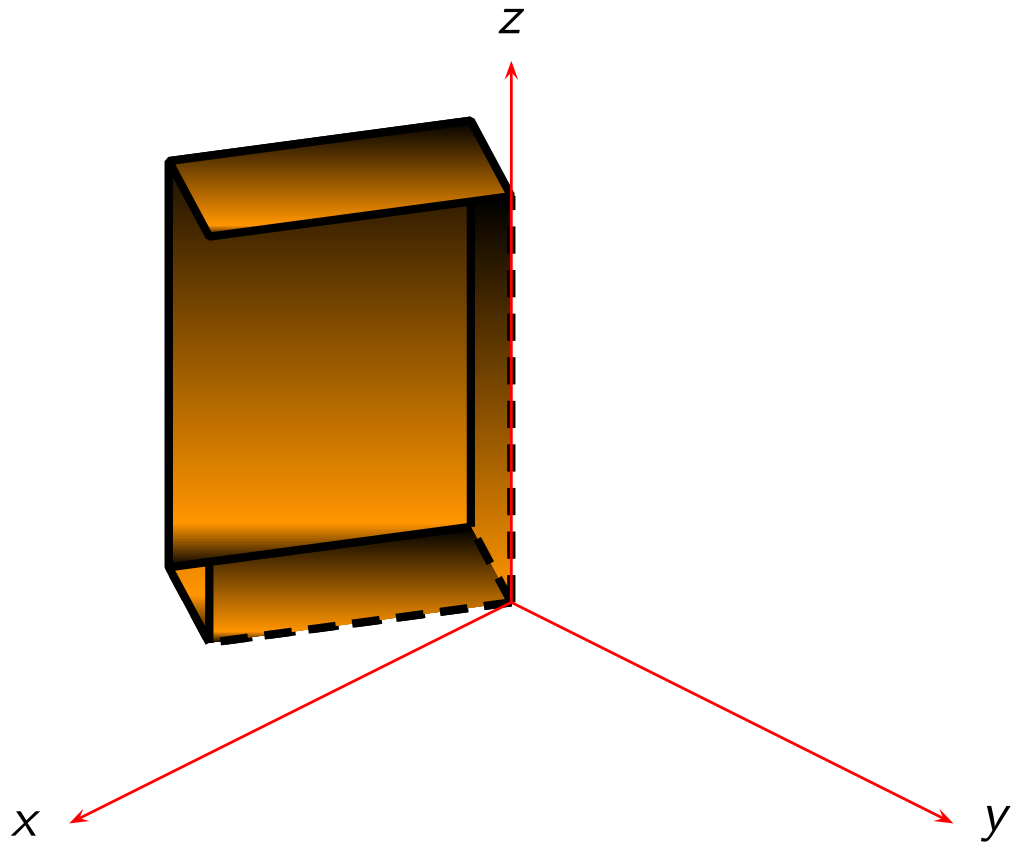


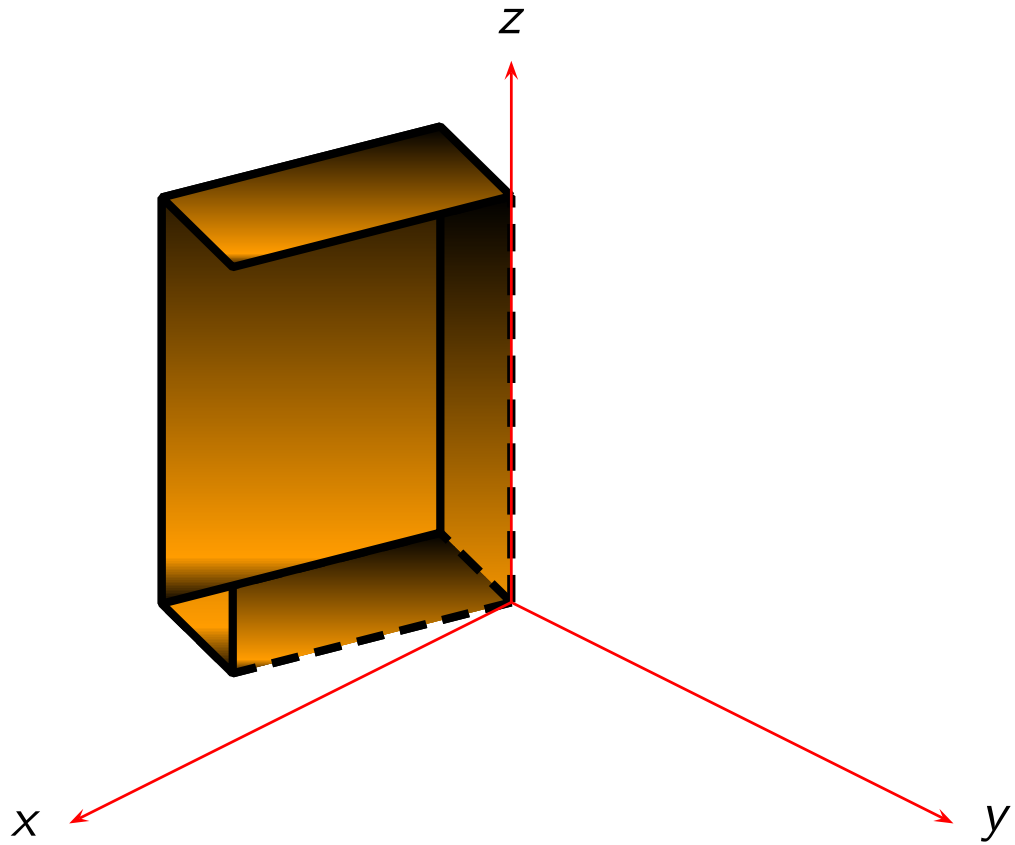
▶ Quellcode

pst-3dplot



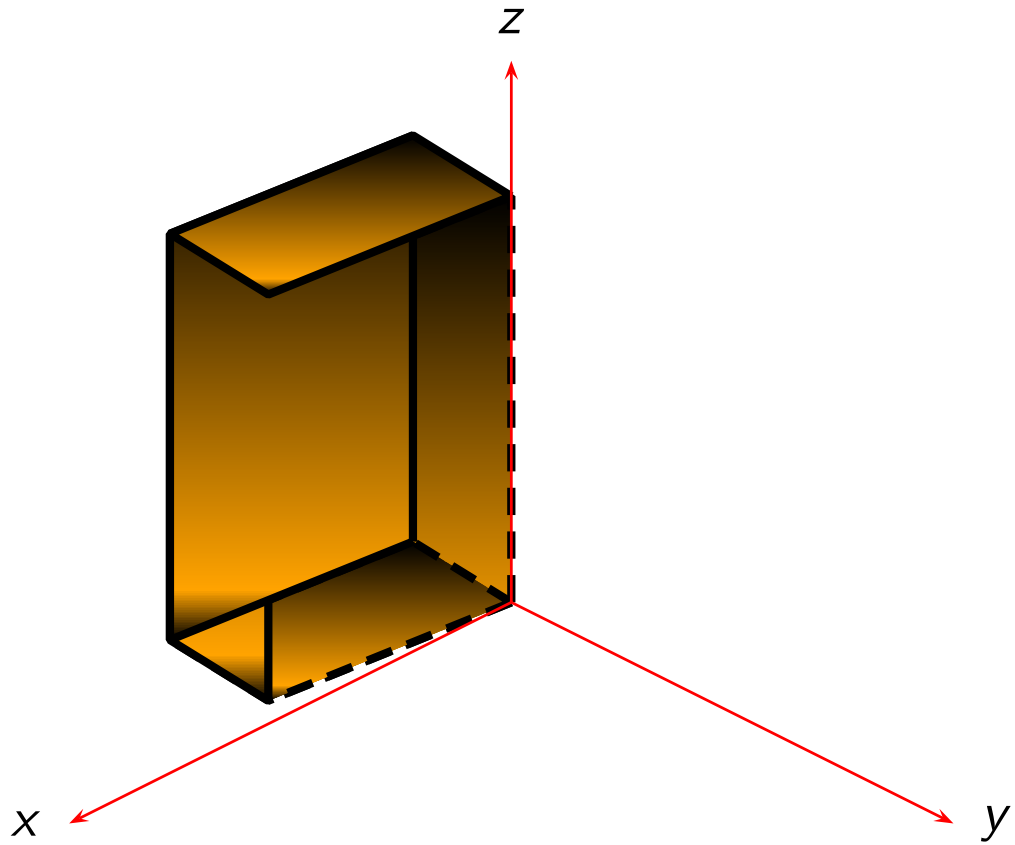
▸ Quellcode

pst-3dplot

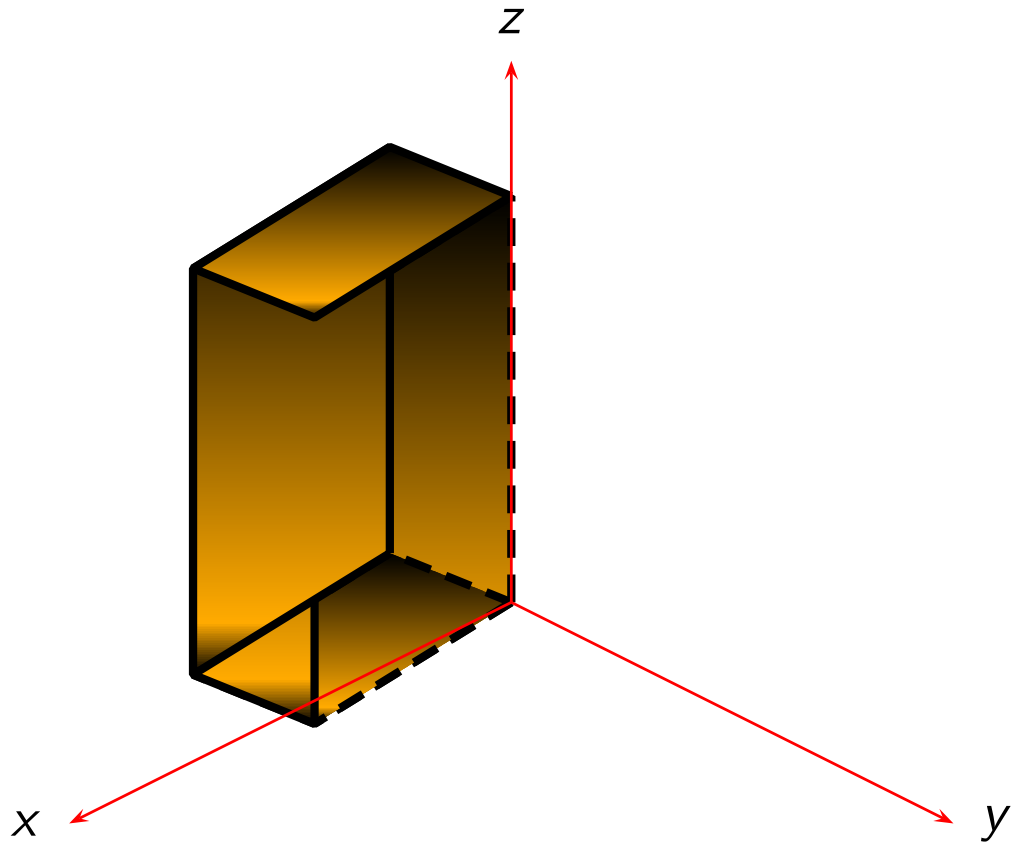


▶ Quellcode

pst-3dplot



▸ Quellcode



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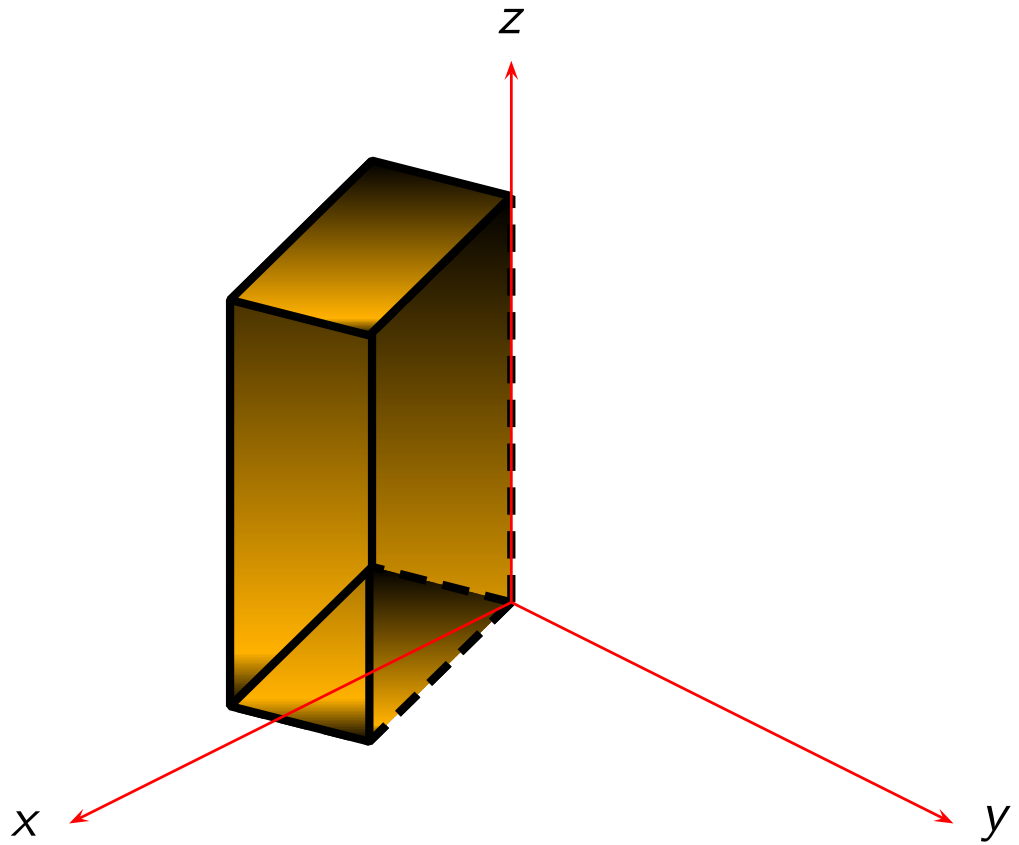
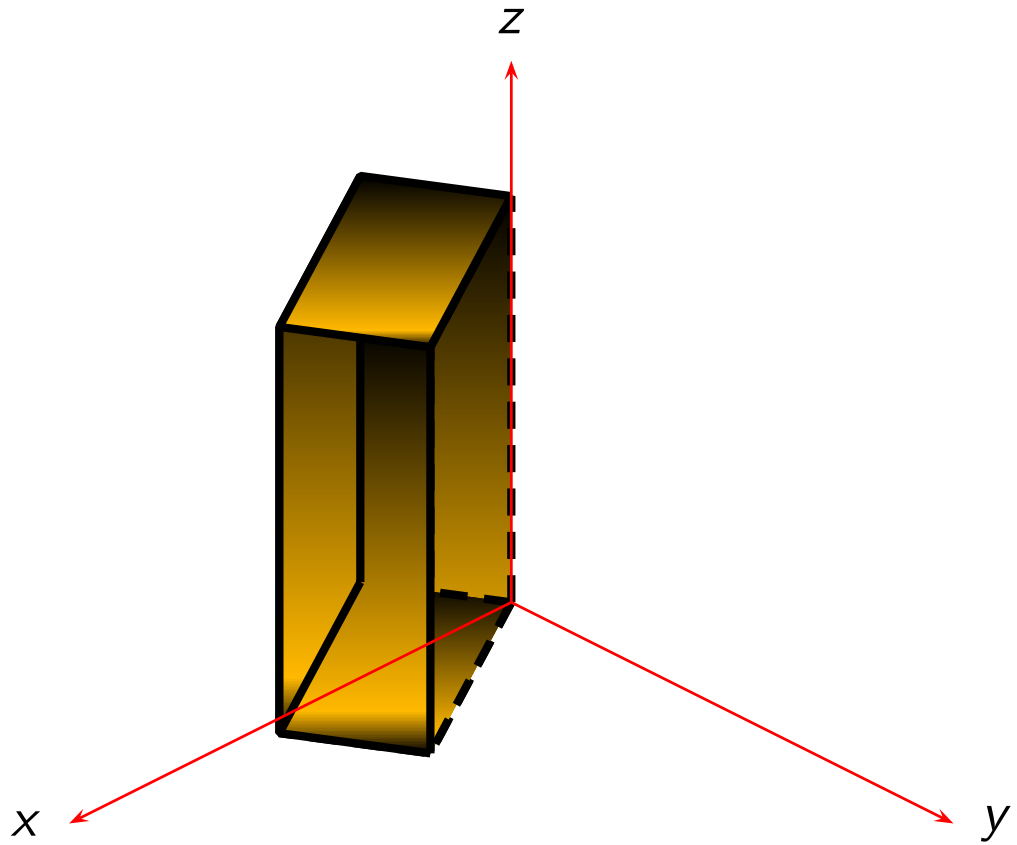


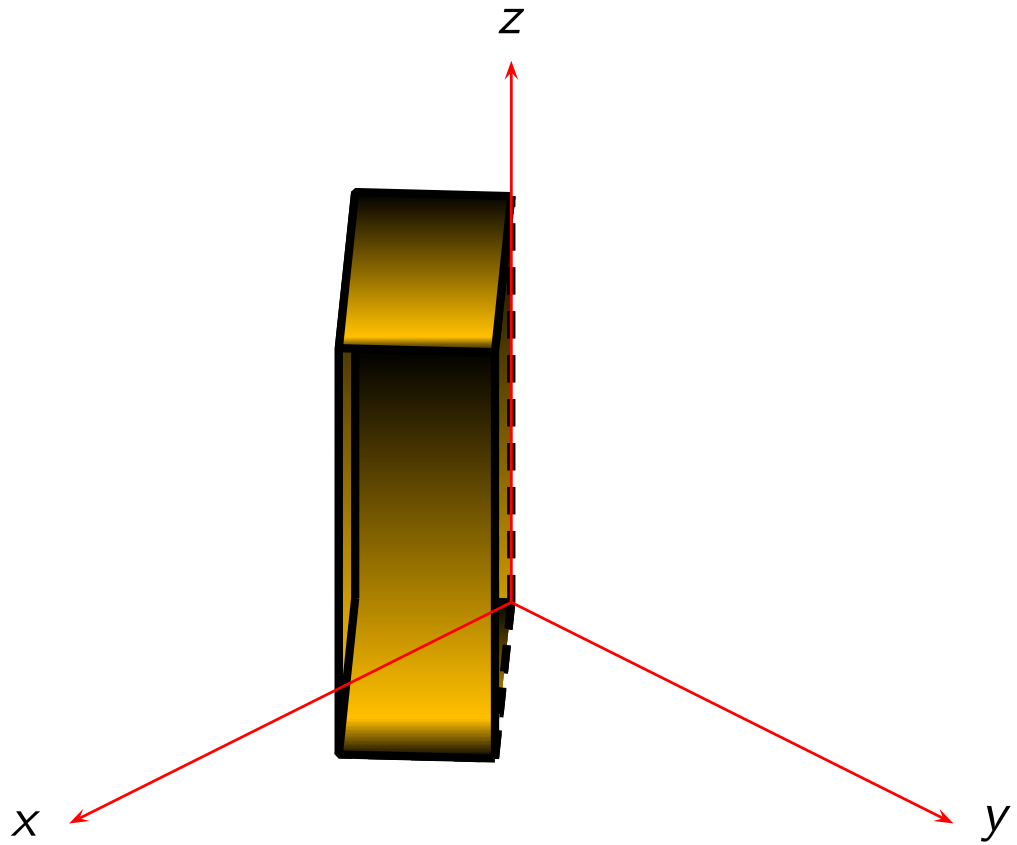
▸ Quellcode

pst-3dplot



▸ Quellcode

pst-3dplot



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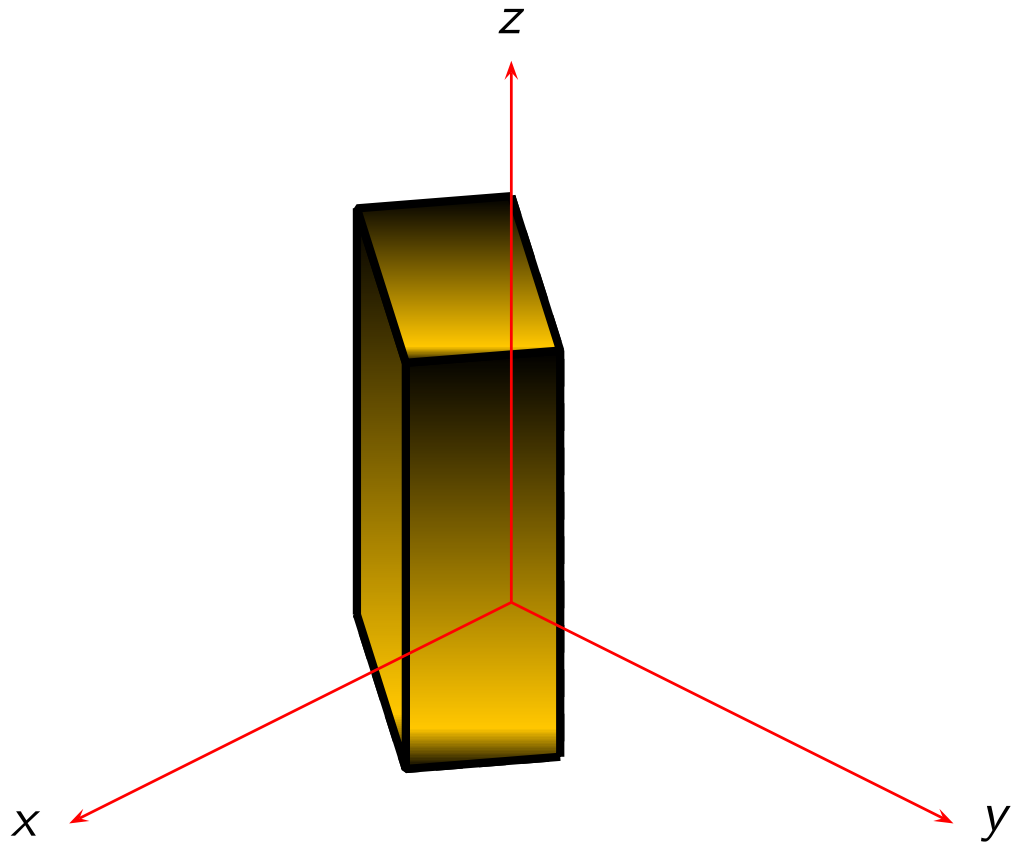

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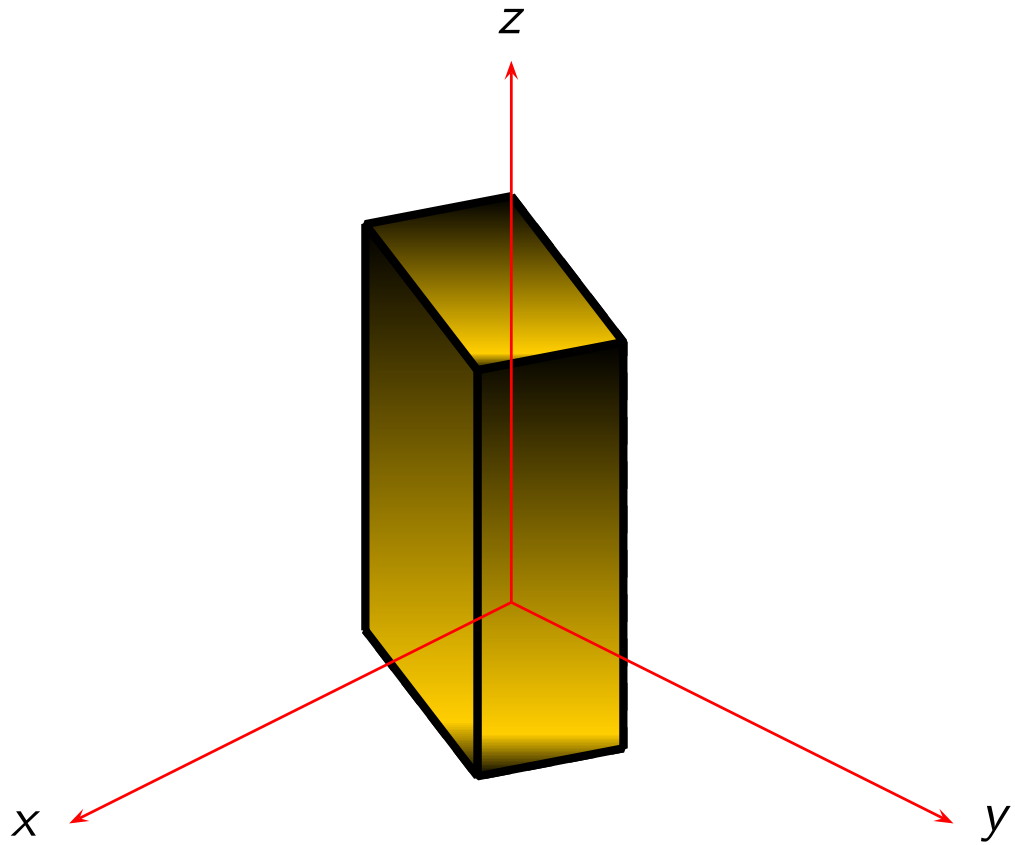
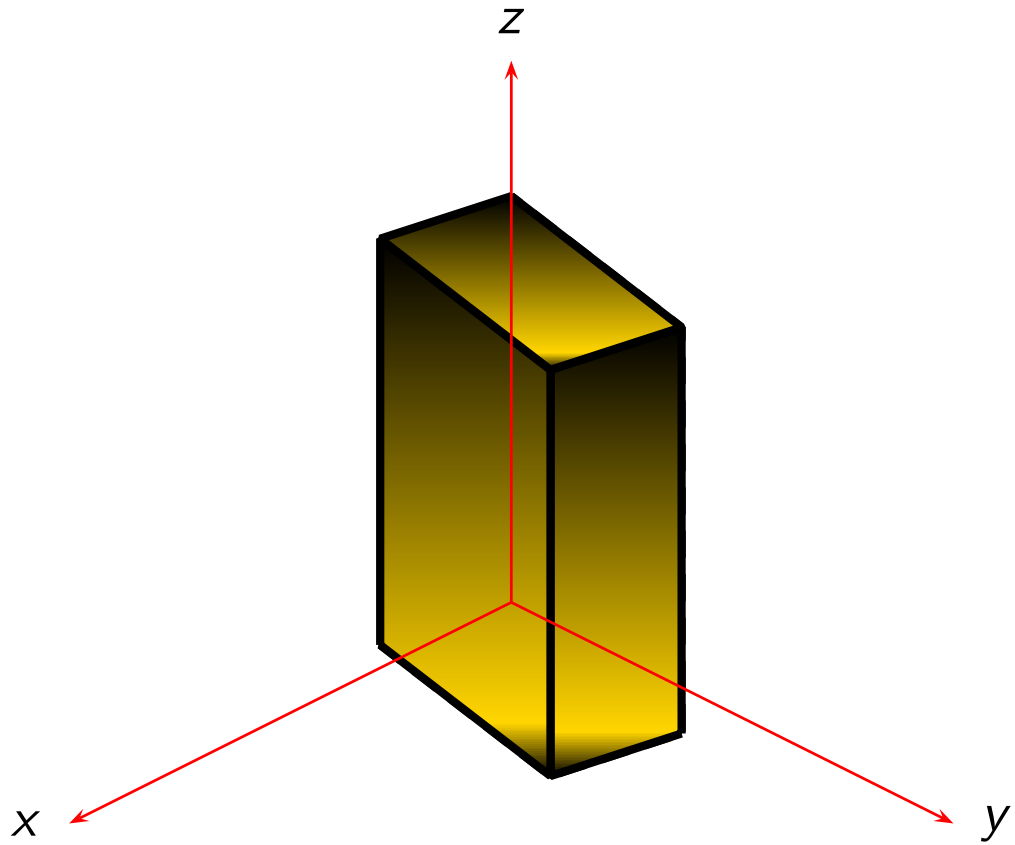
pst-3dplot



▸ Quellcode

pst-3dplot



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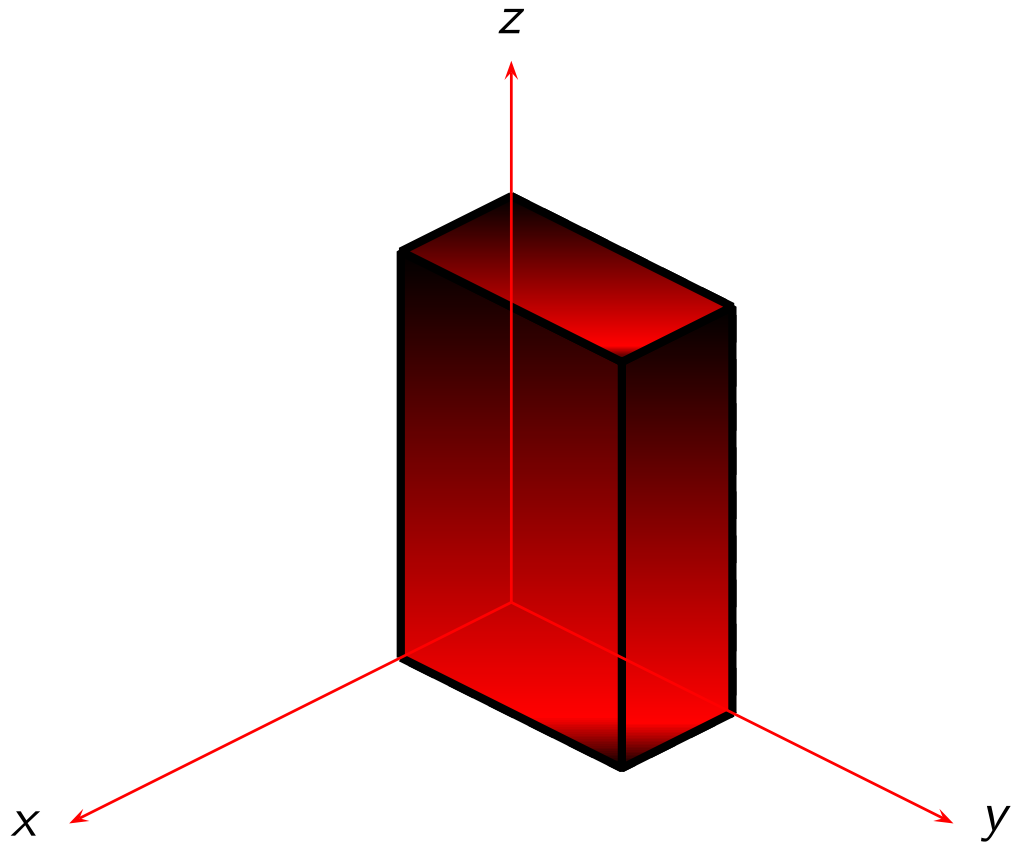

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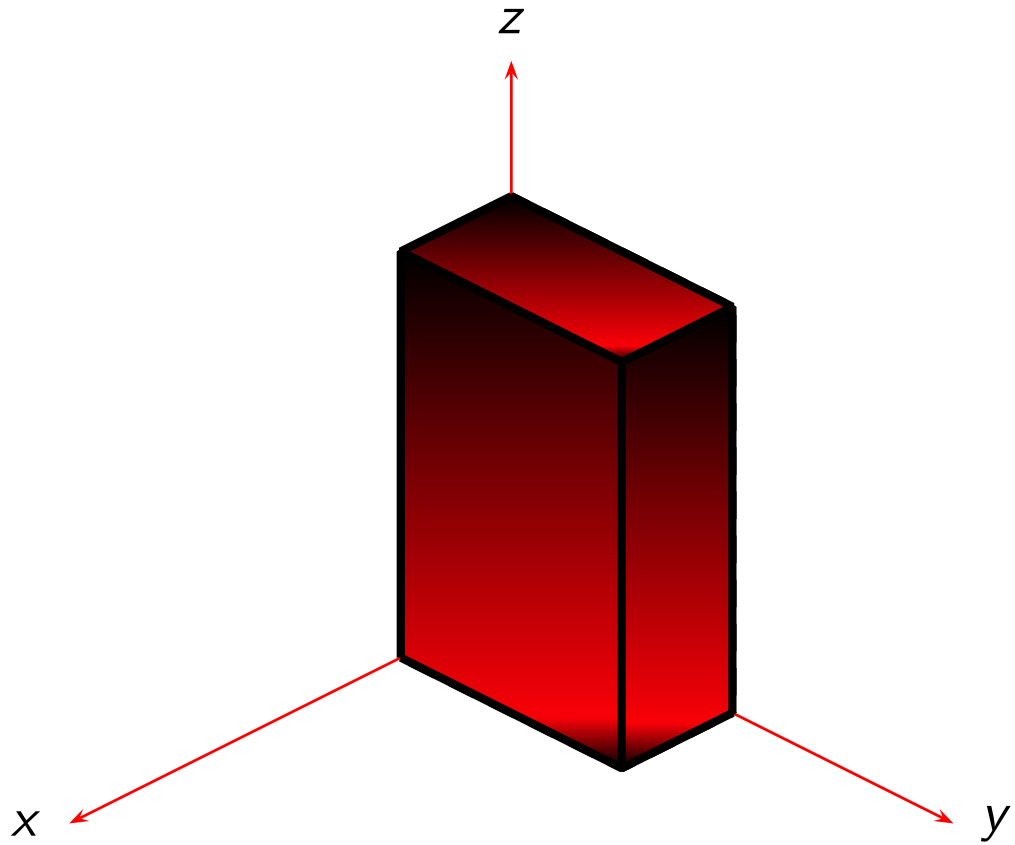

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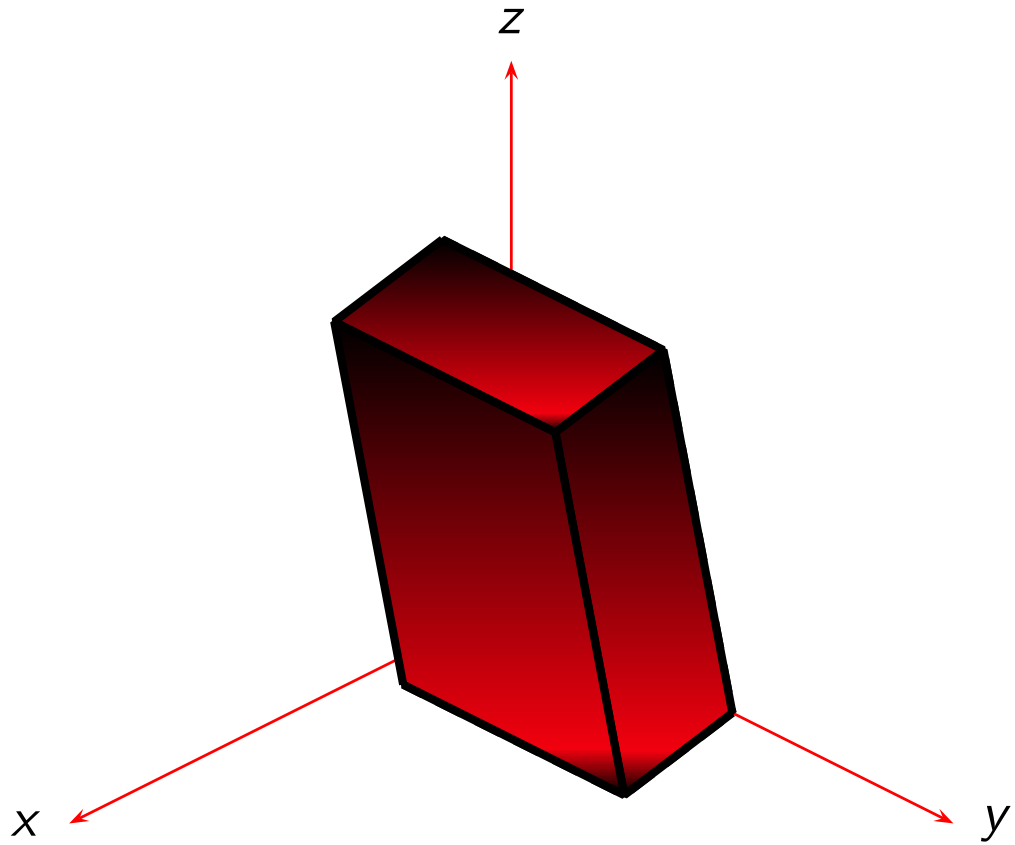

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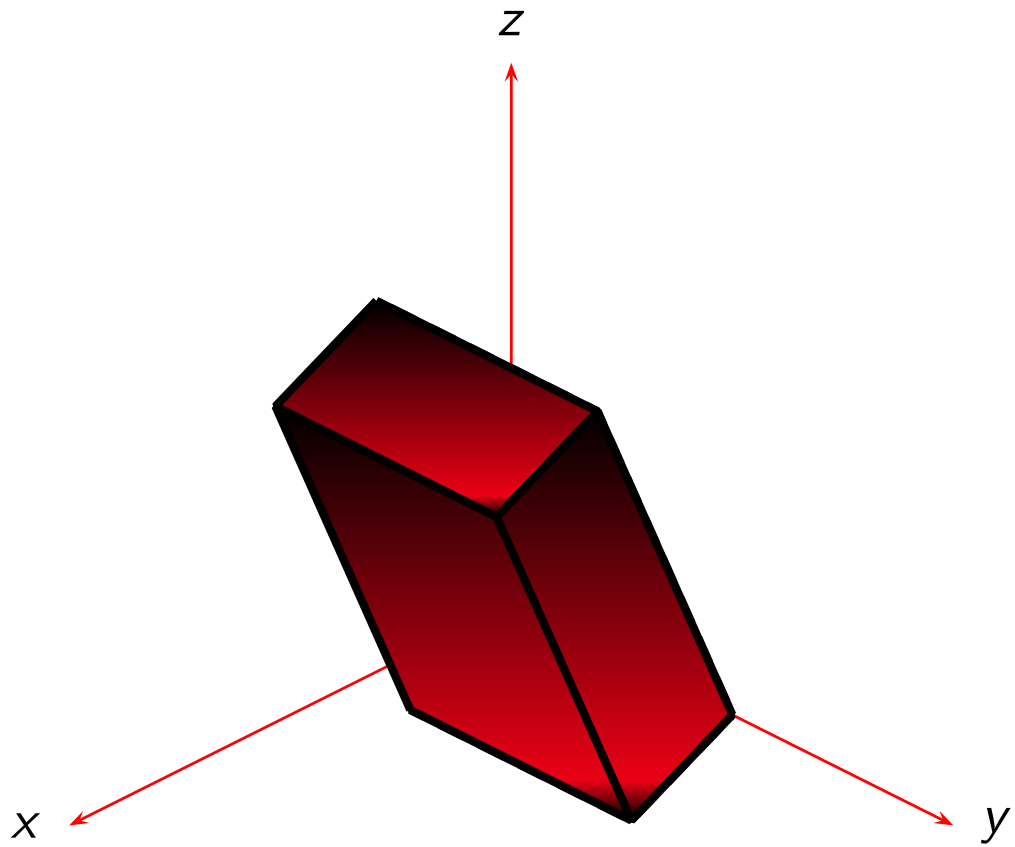

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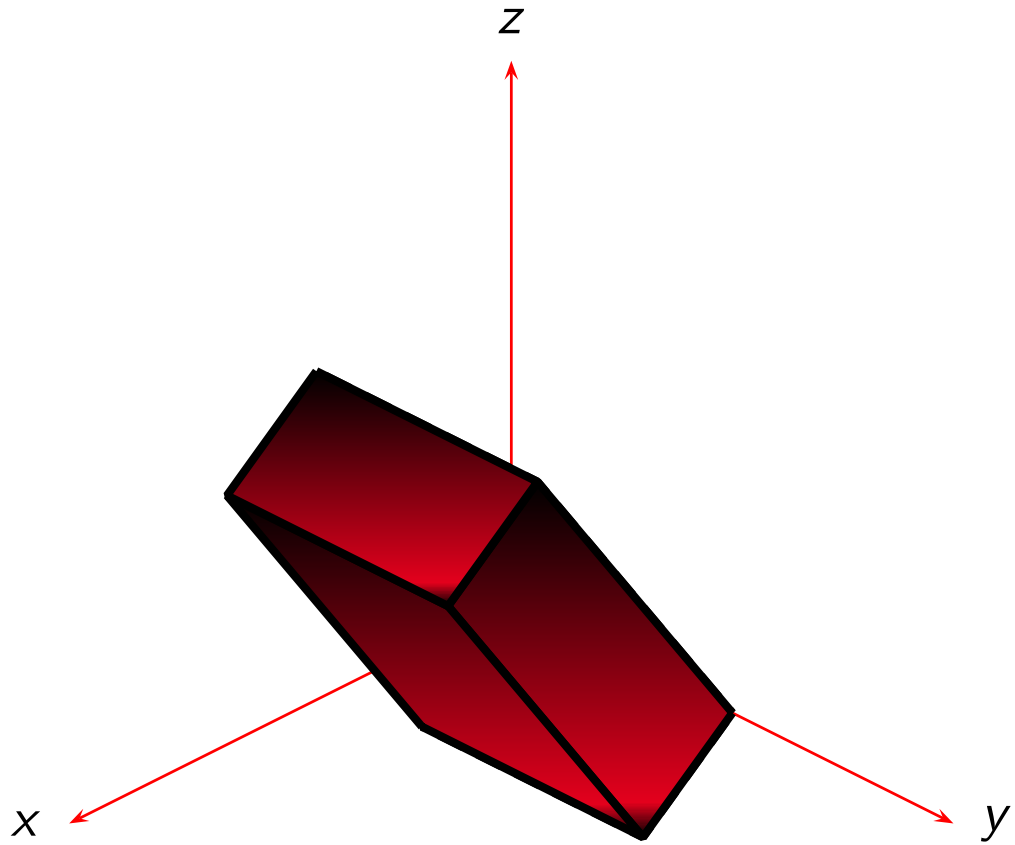

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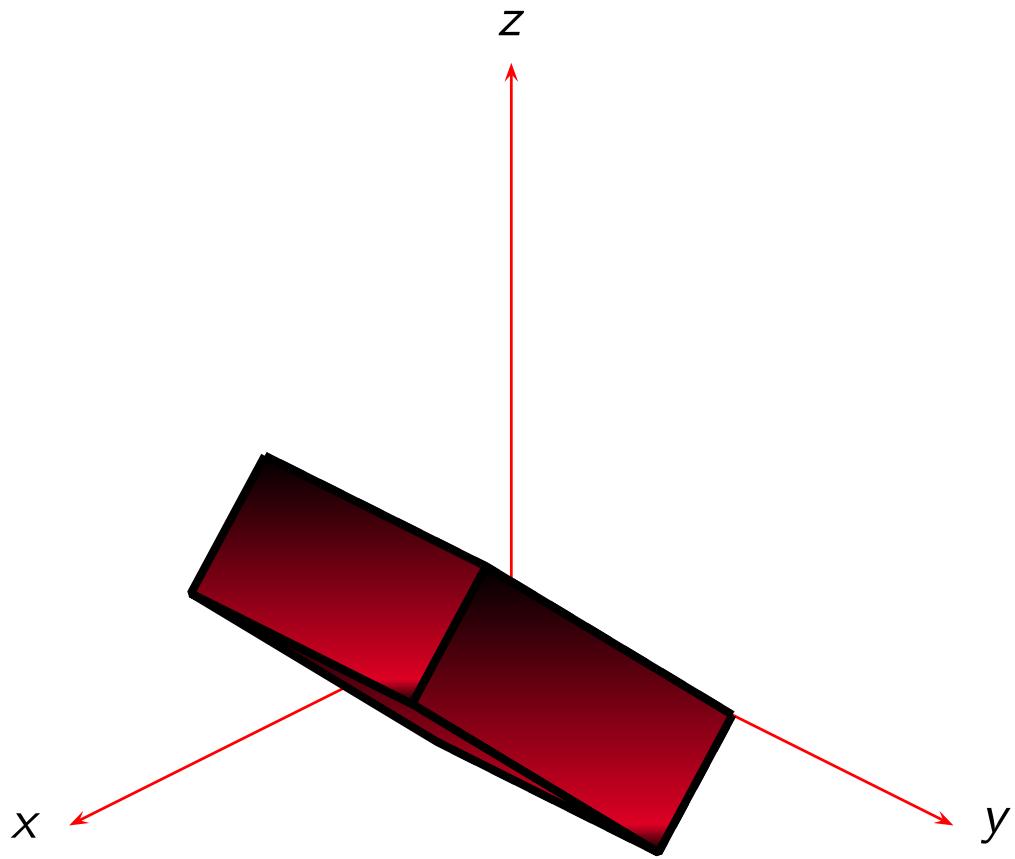

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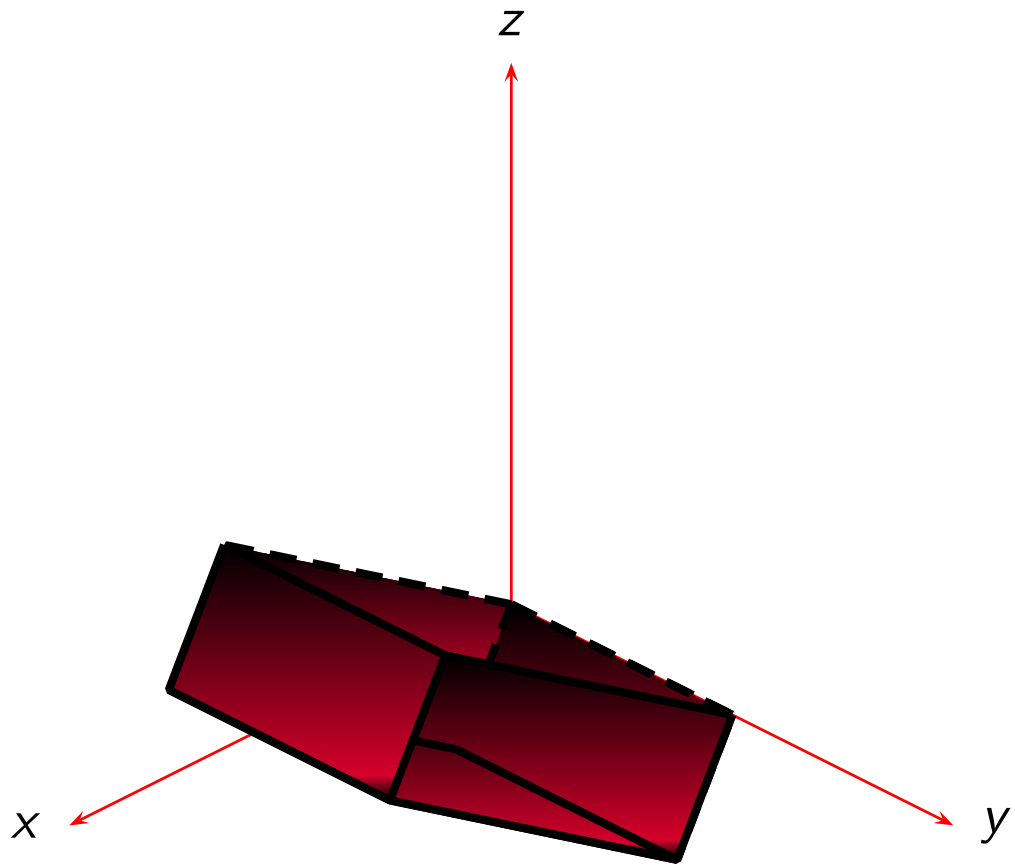

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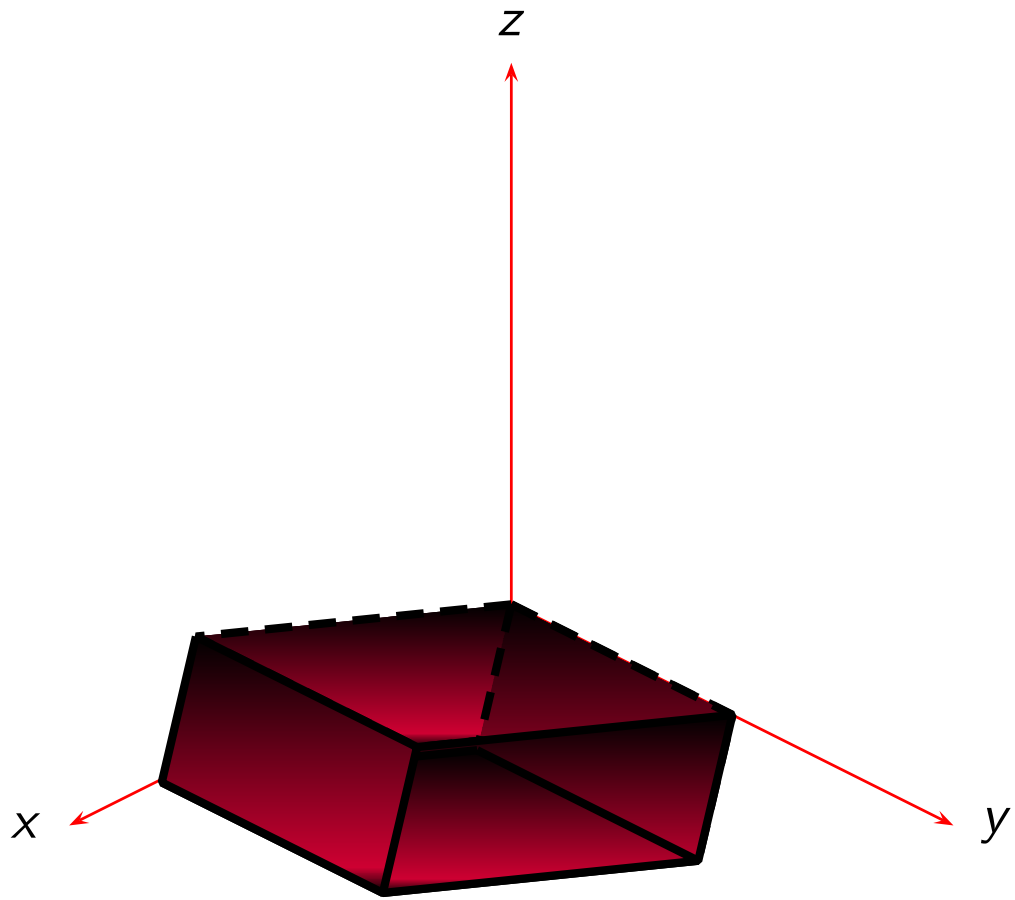

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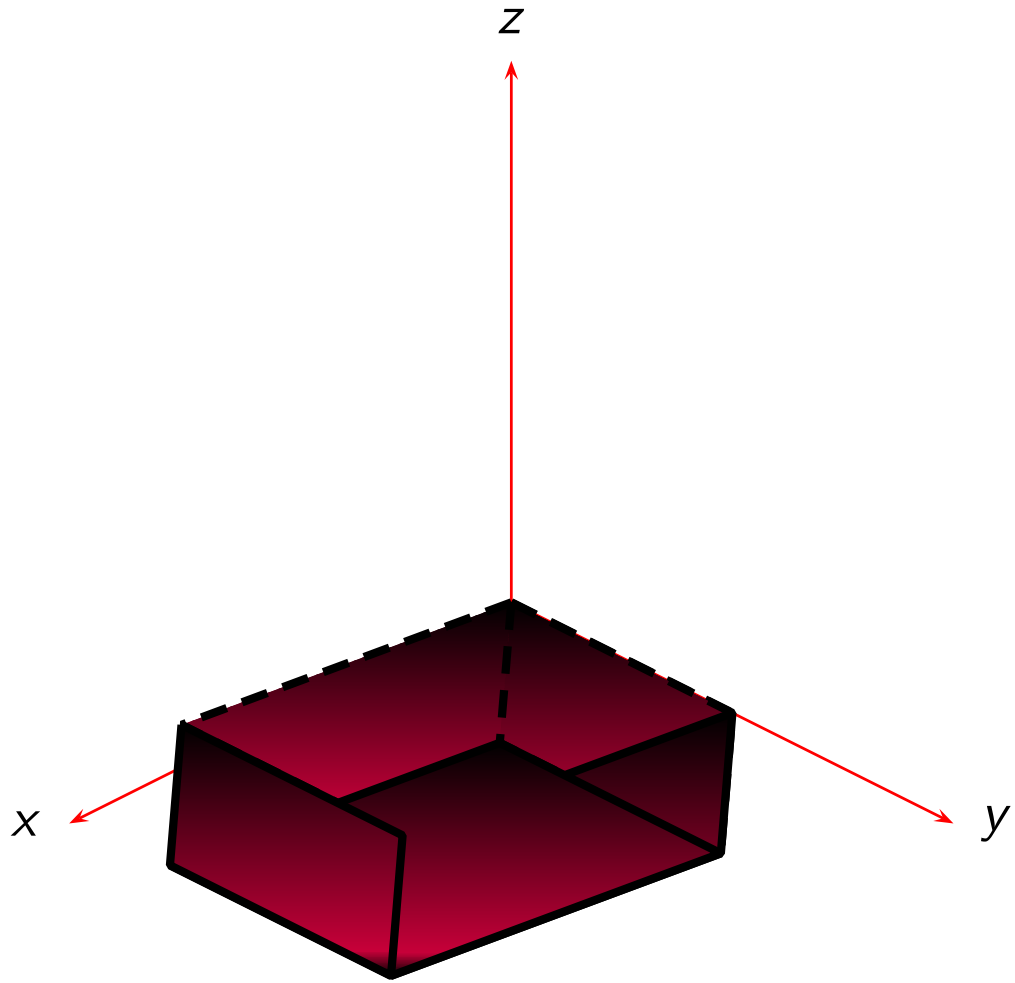

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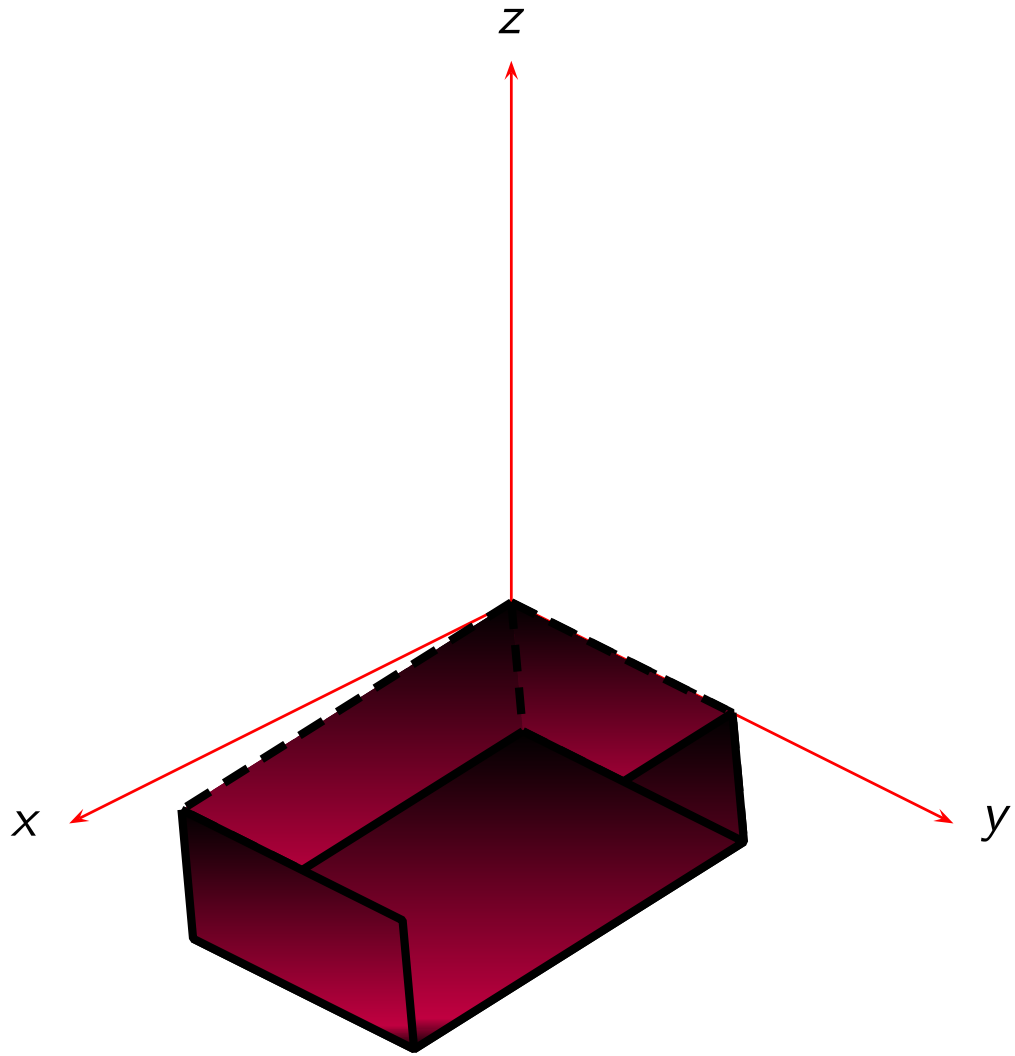

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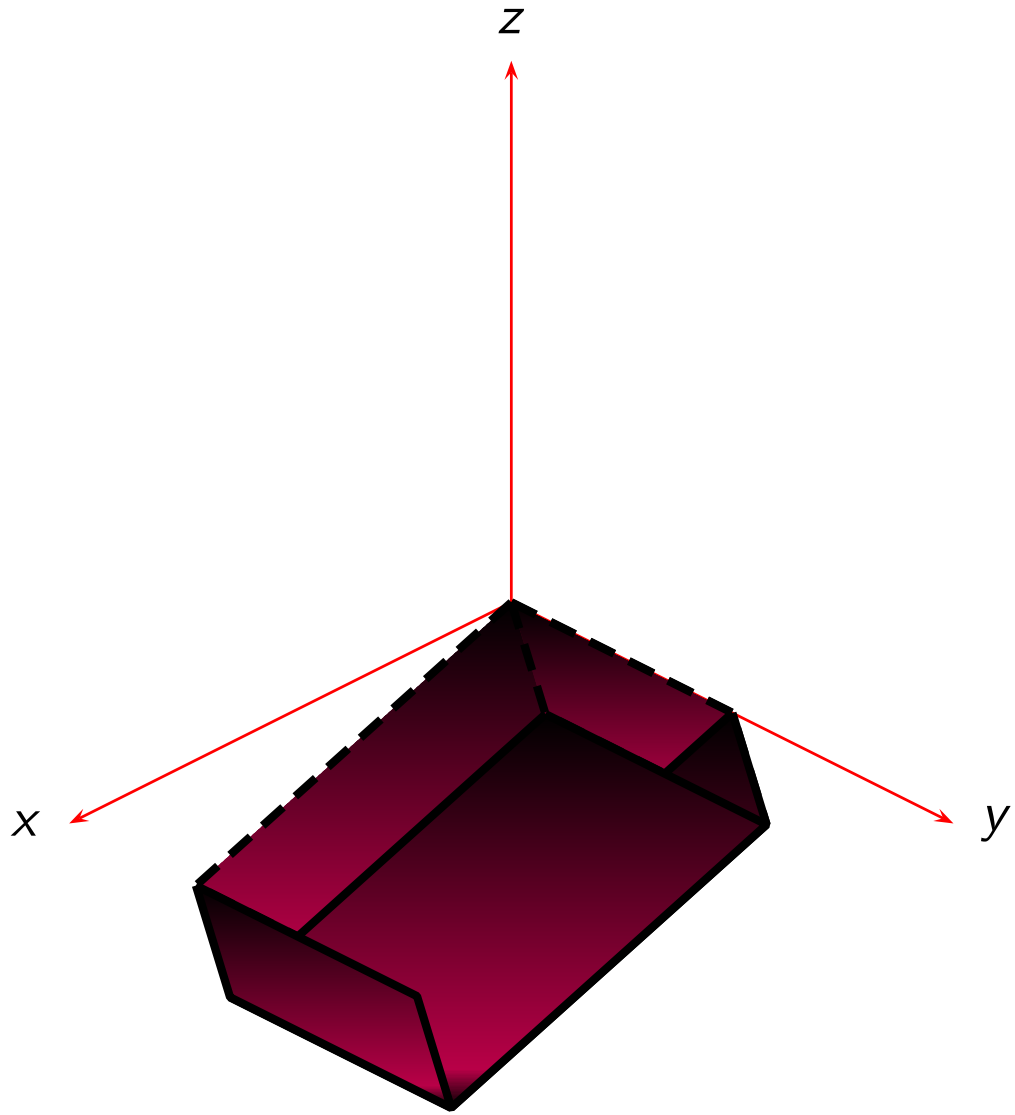

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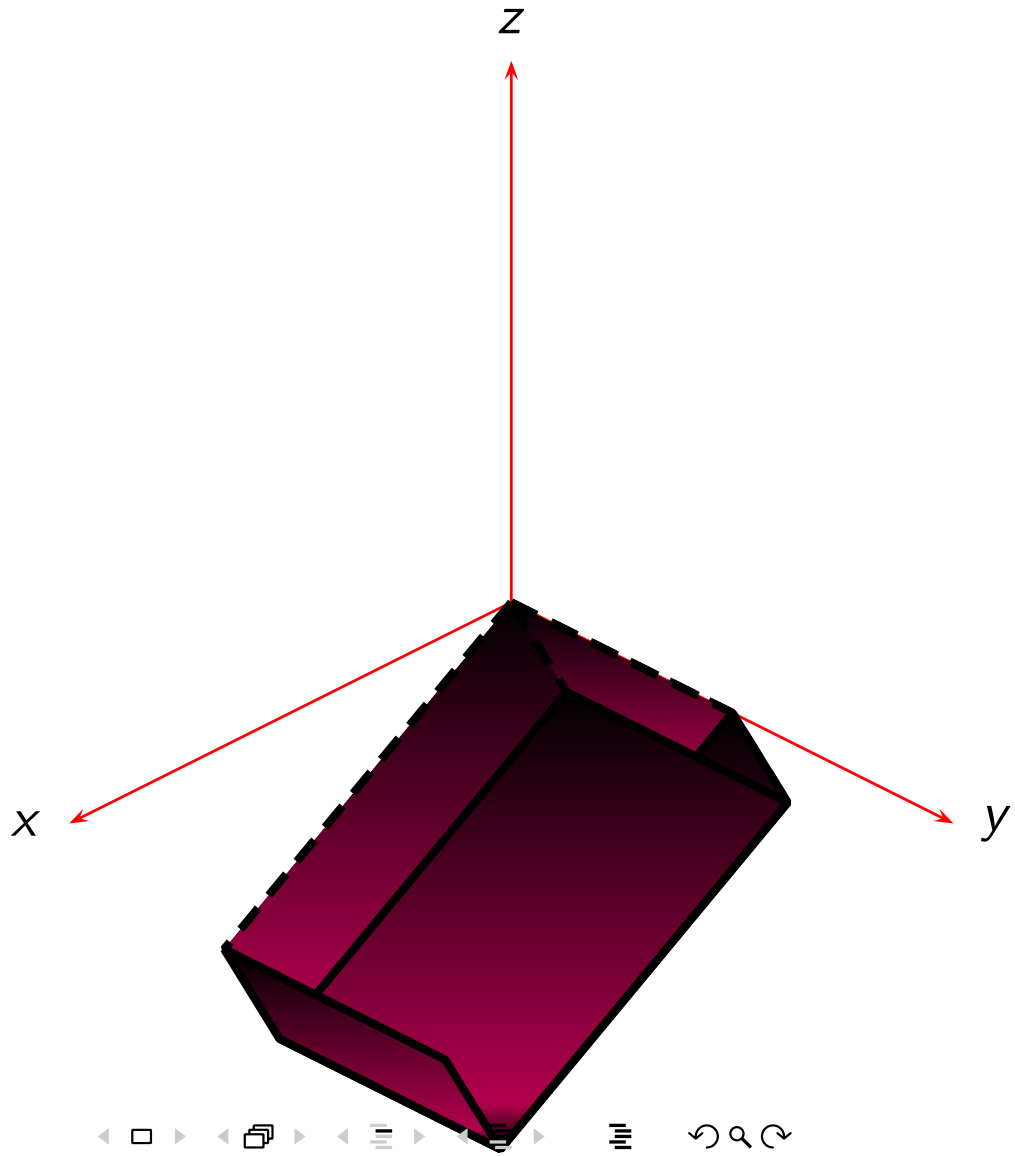

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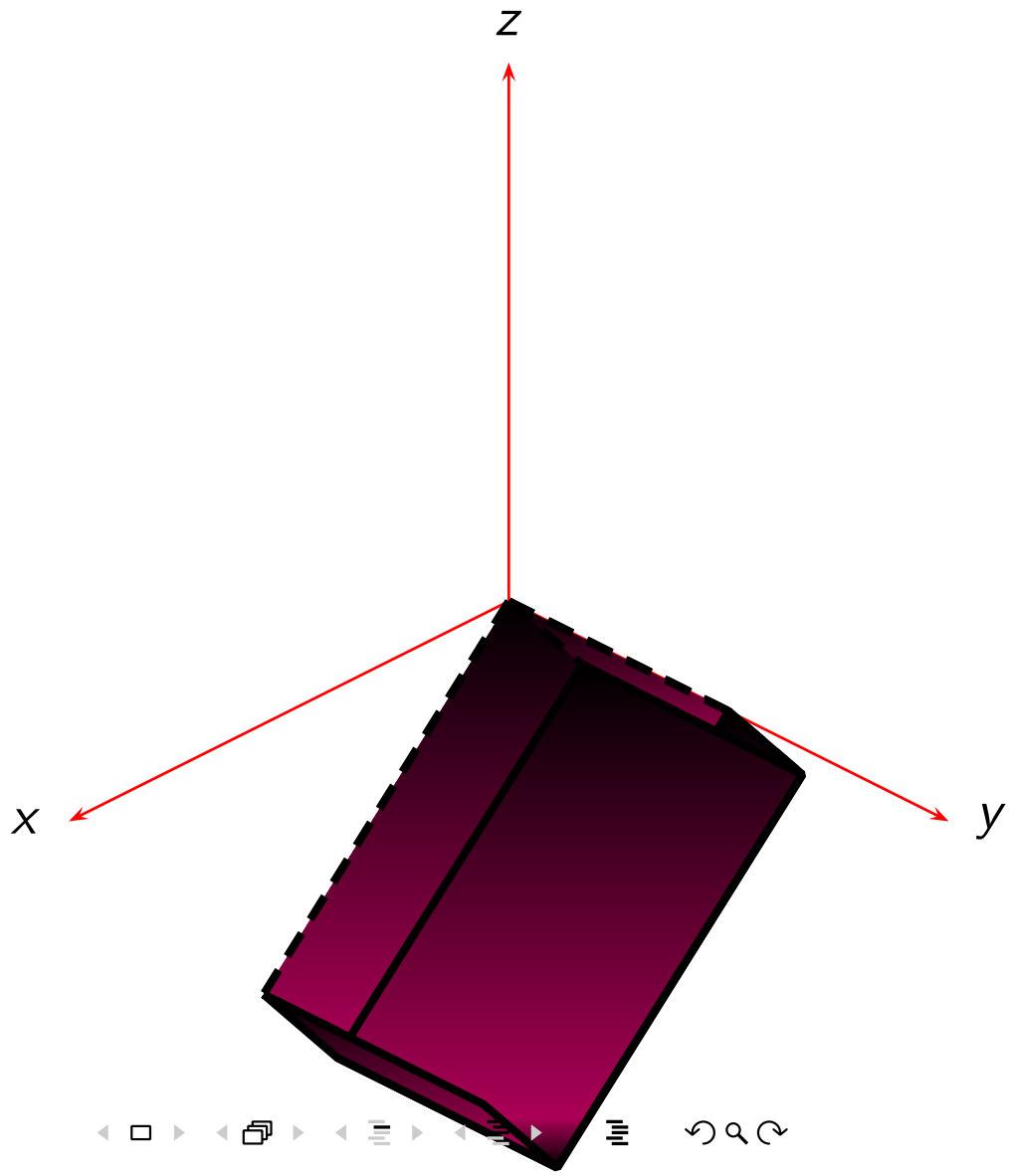

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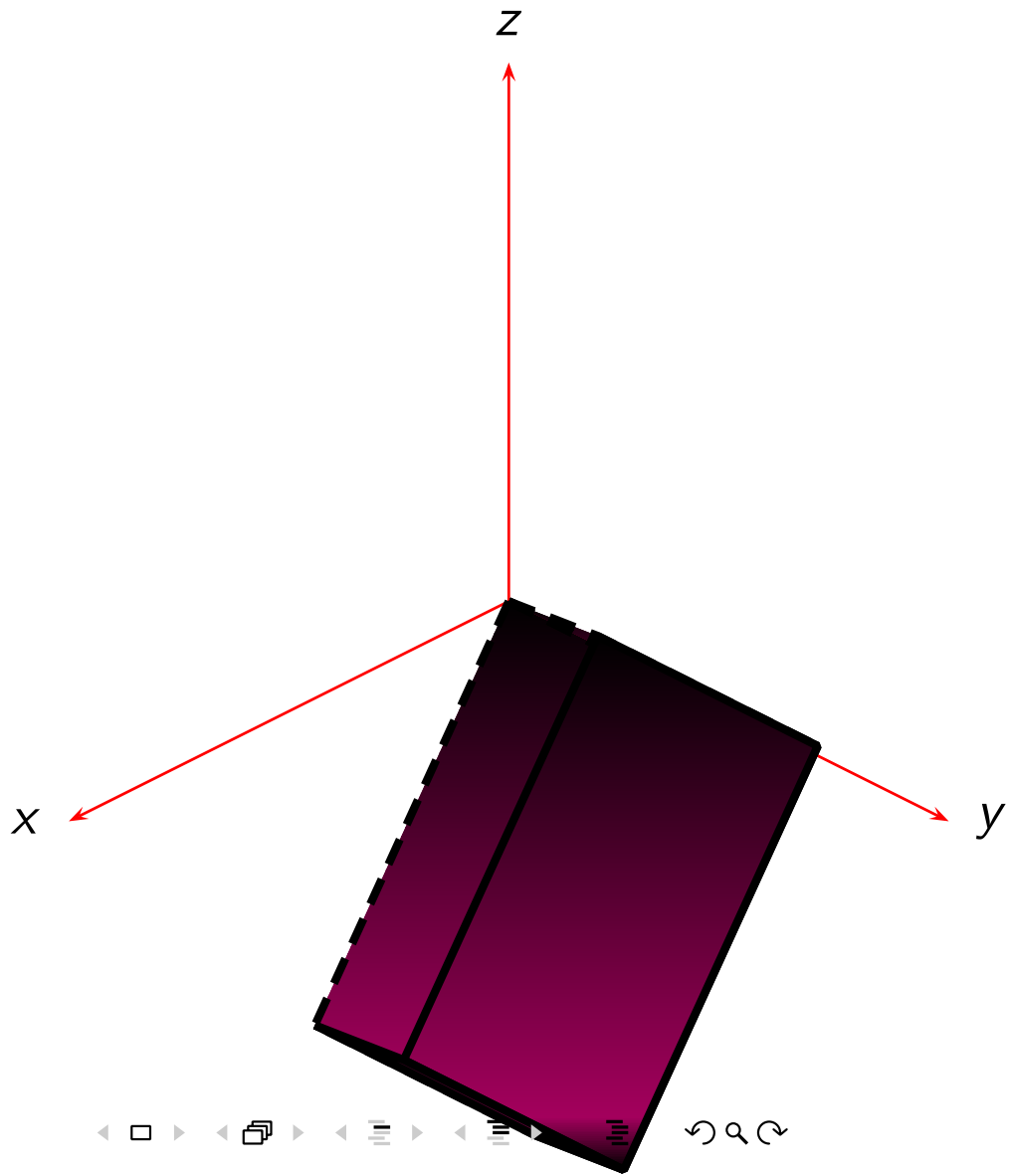

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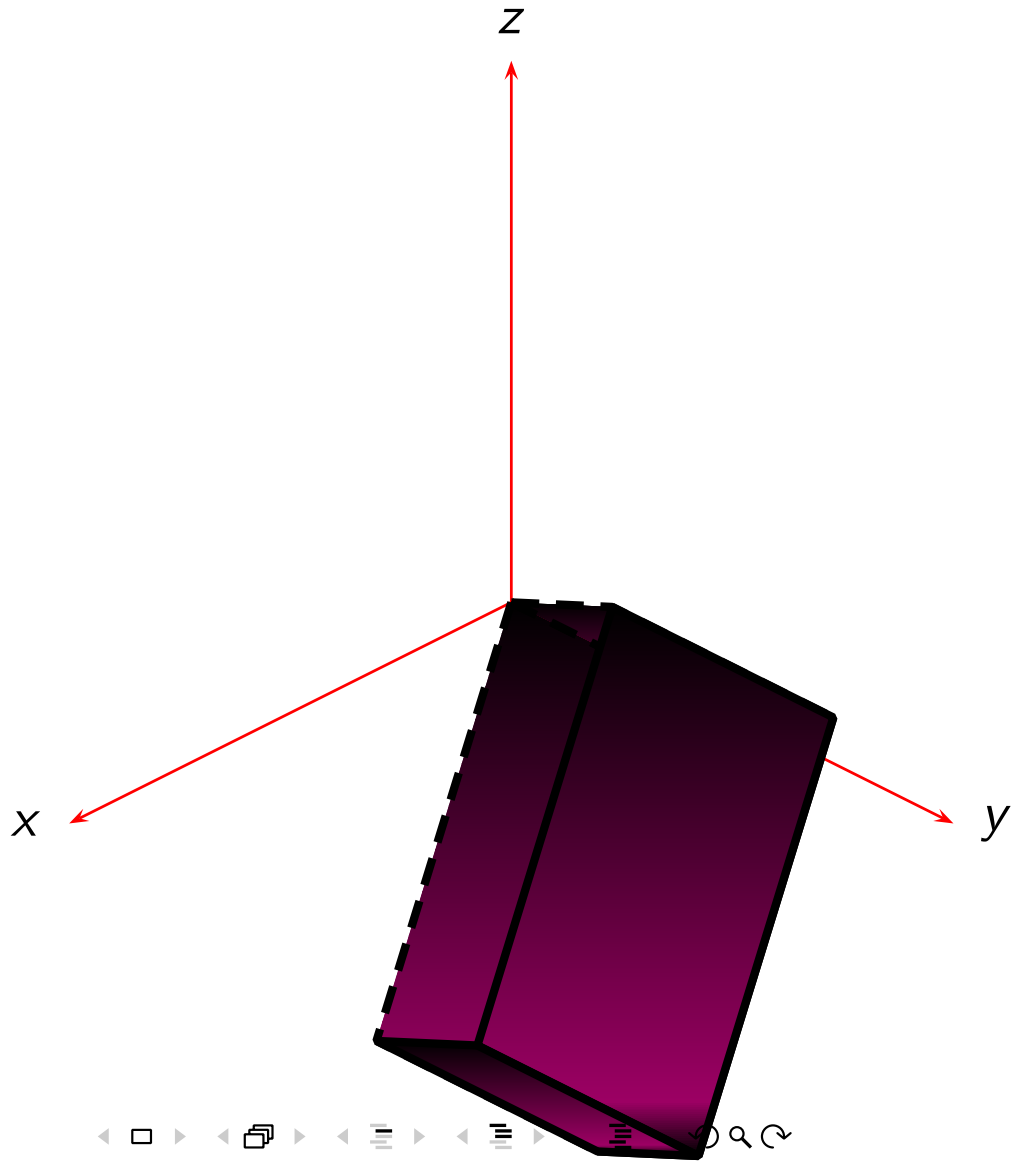

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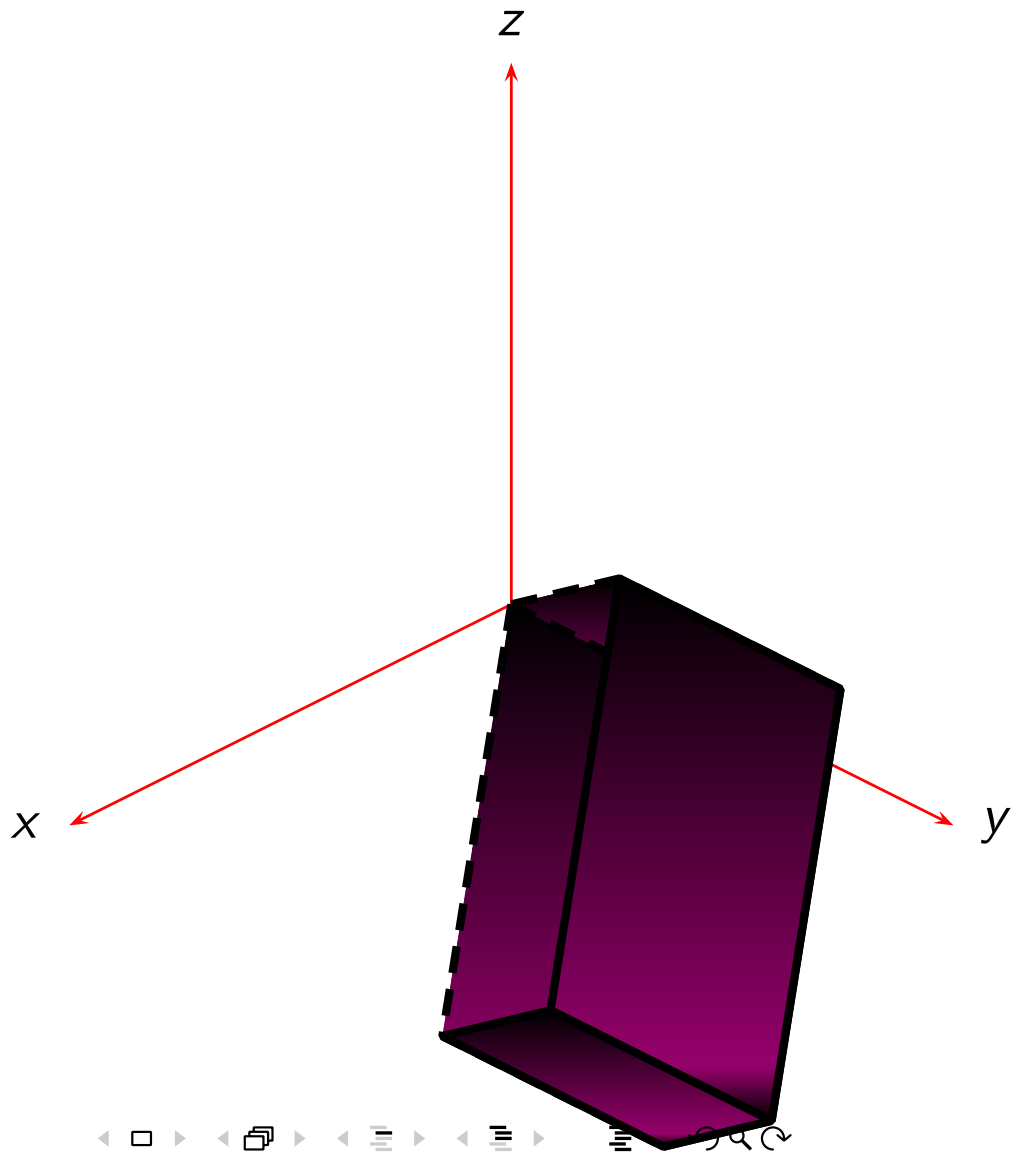

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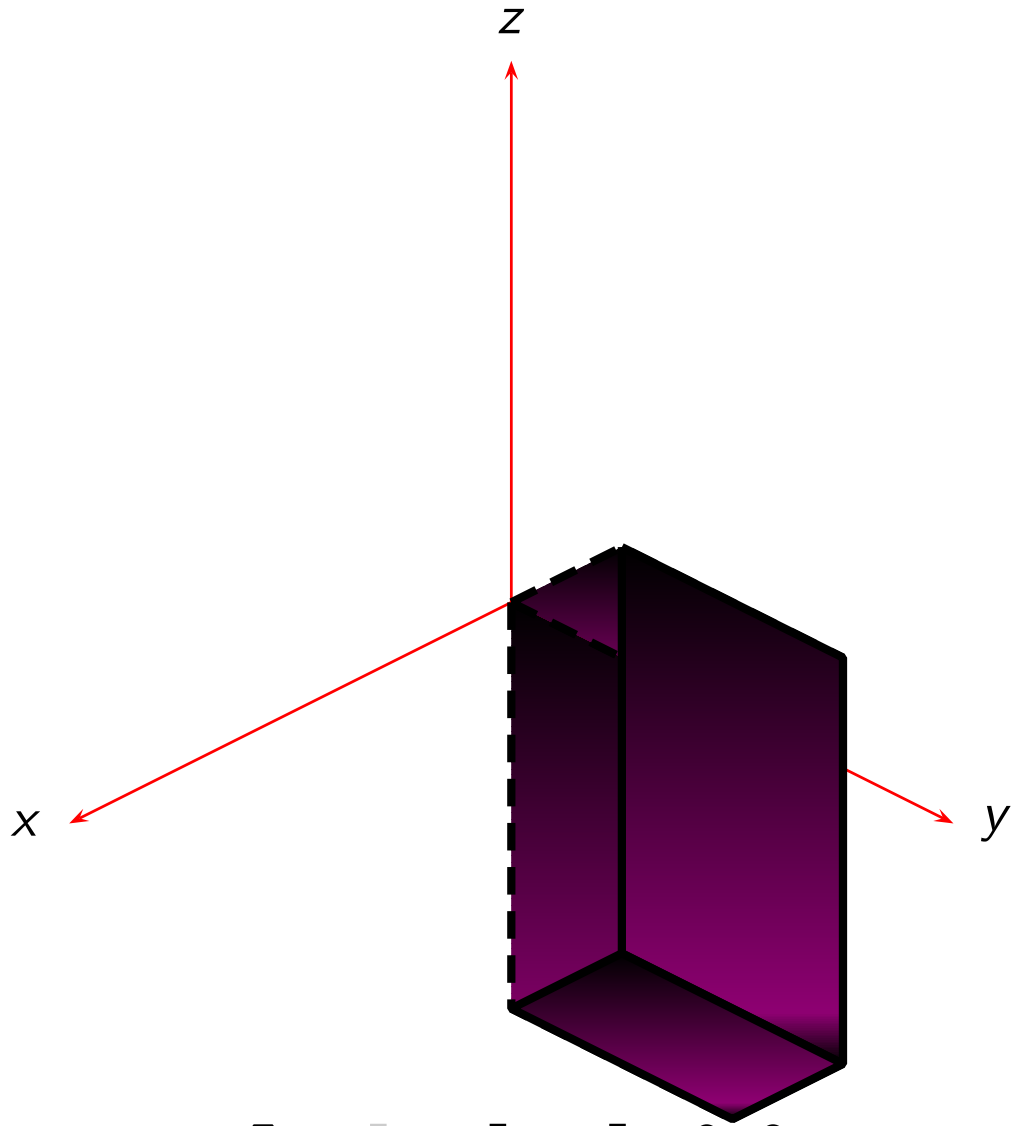

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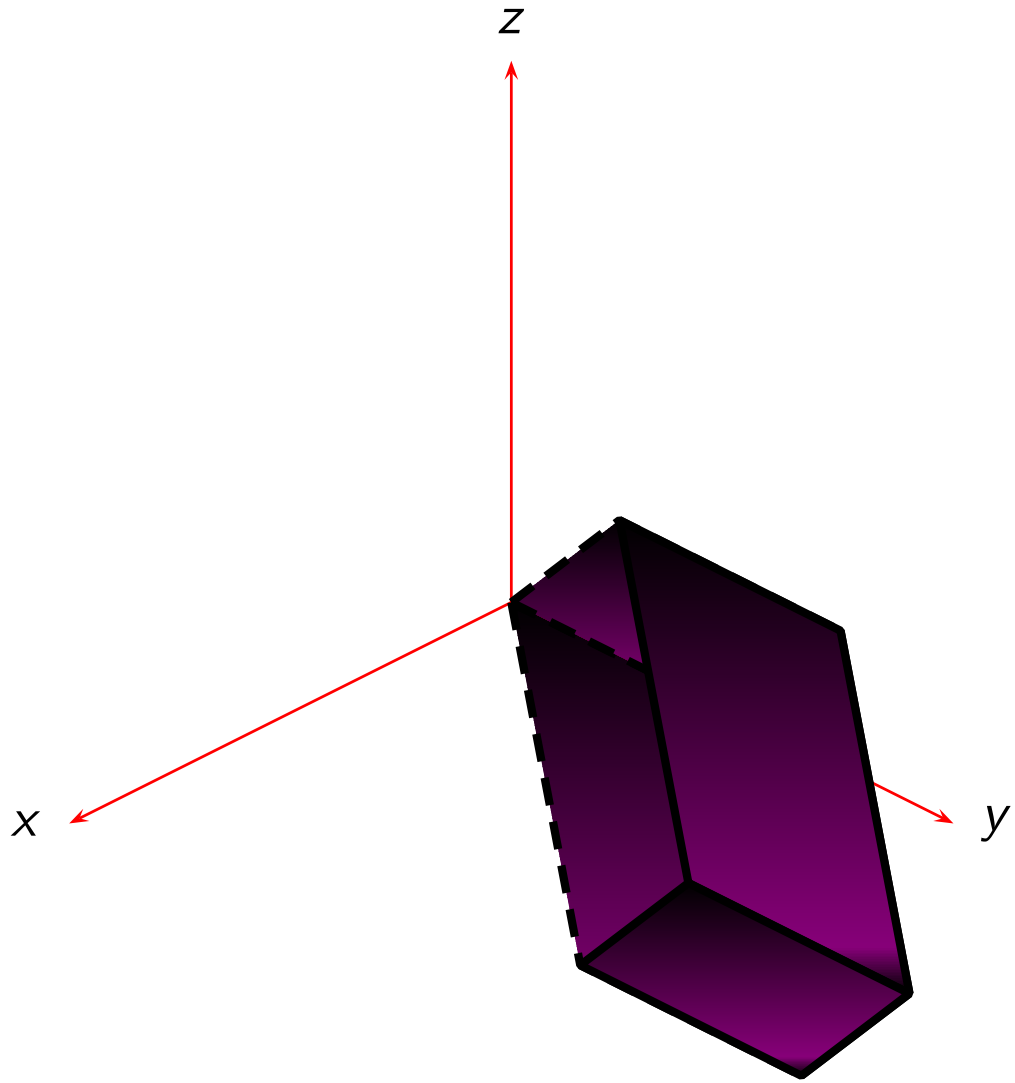

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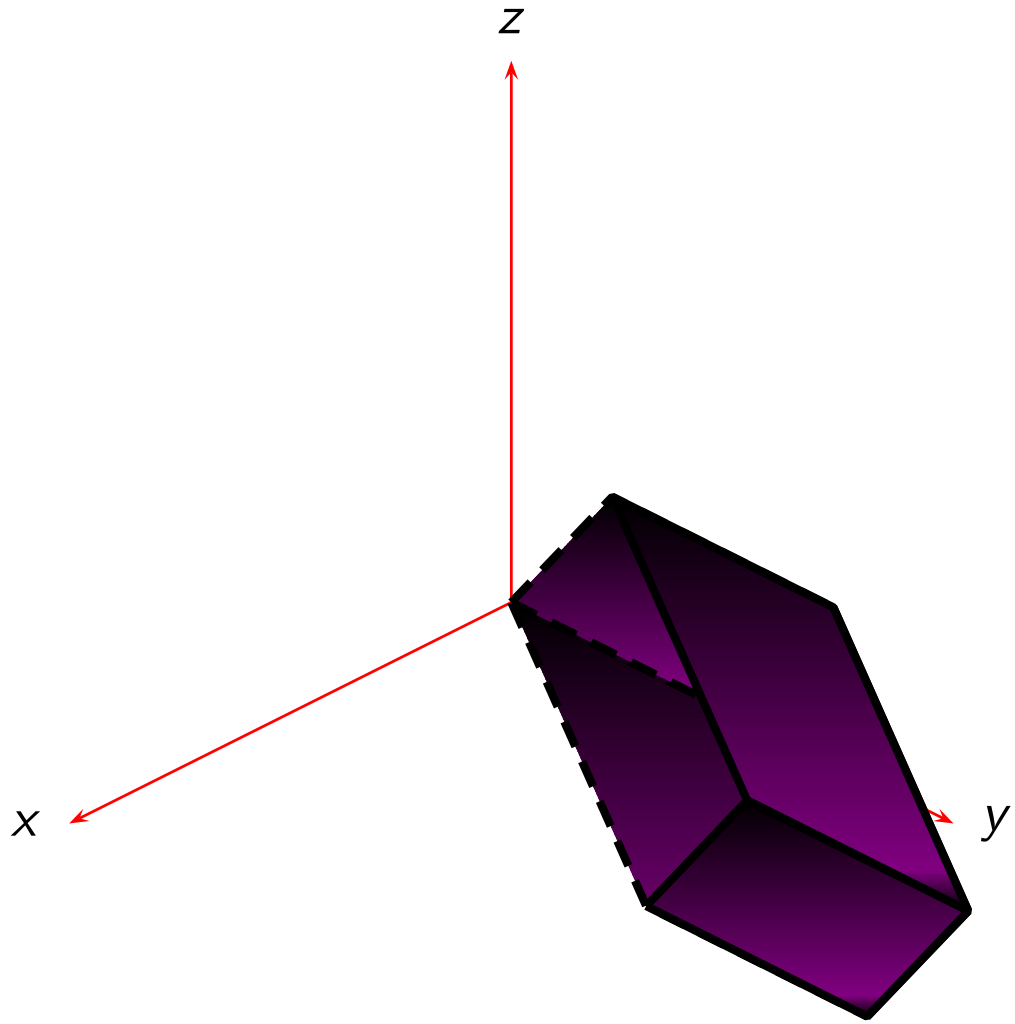

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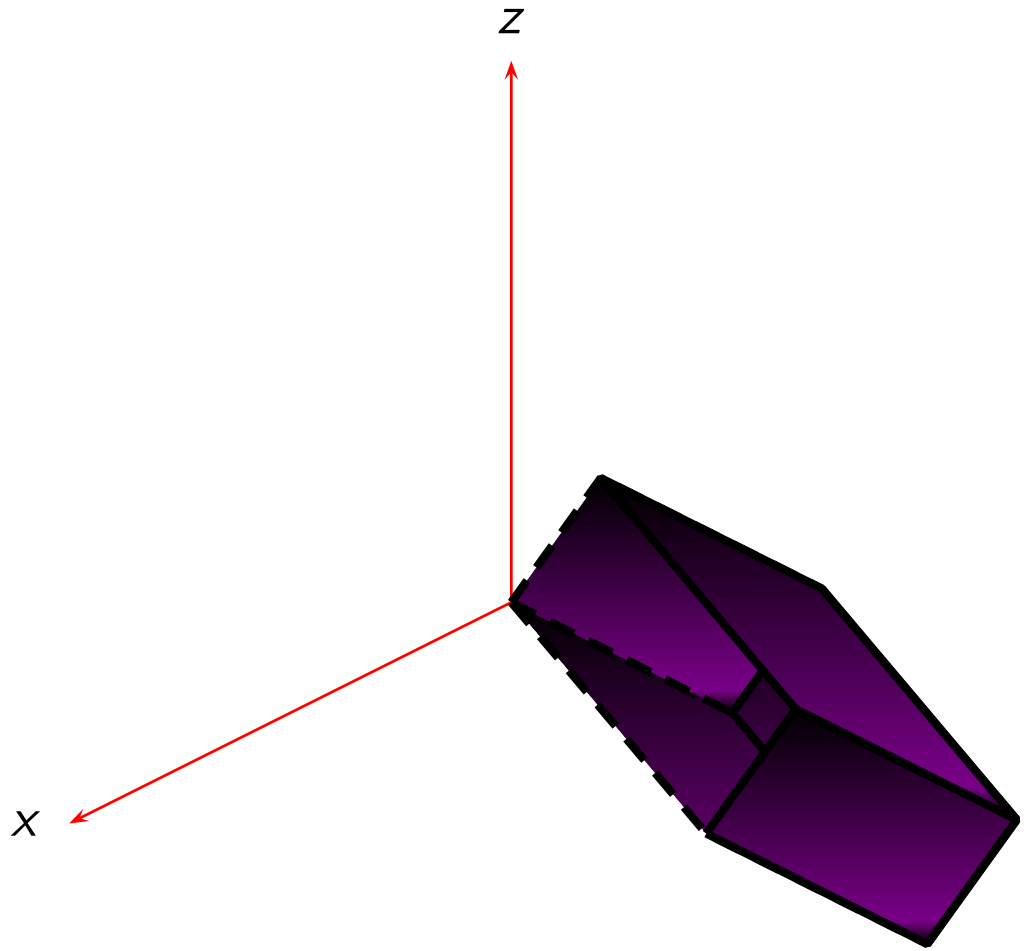

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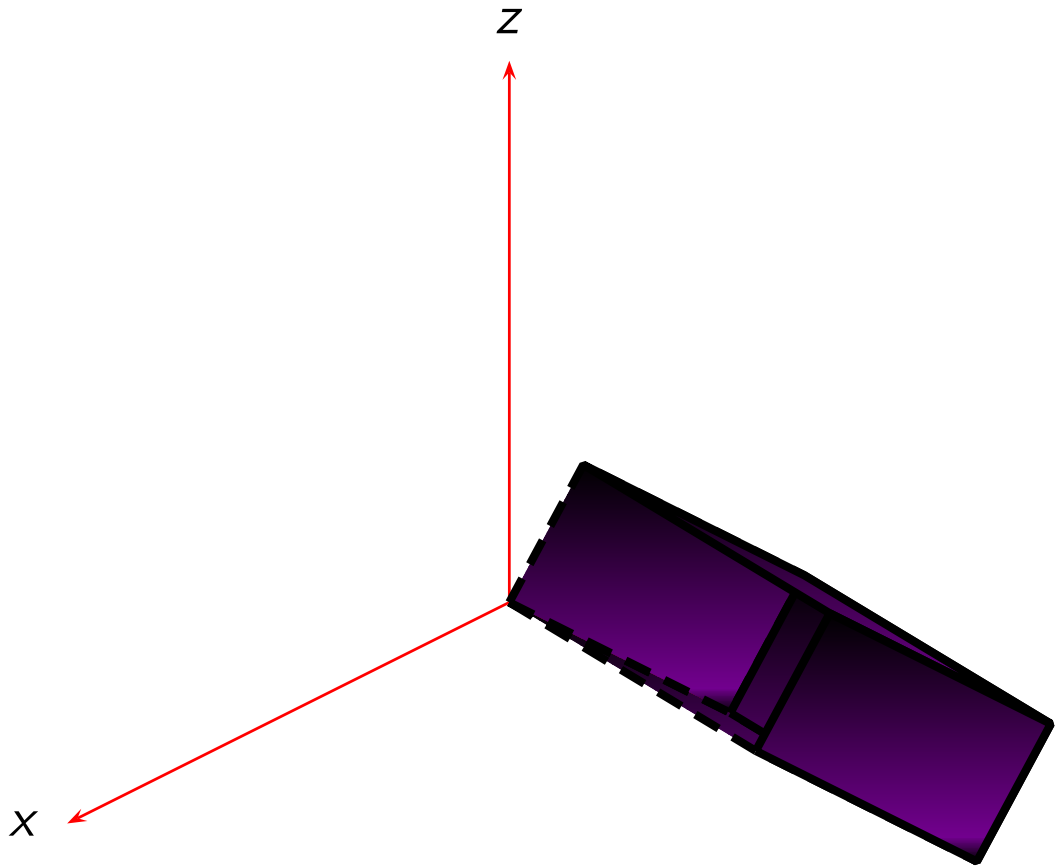

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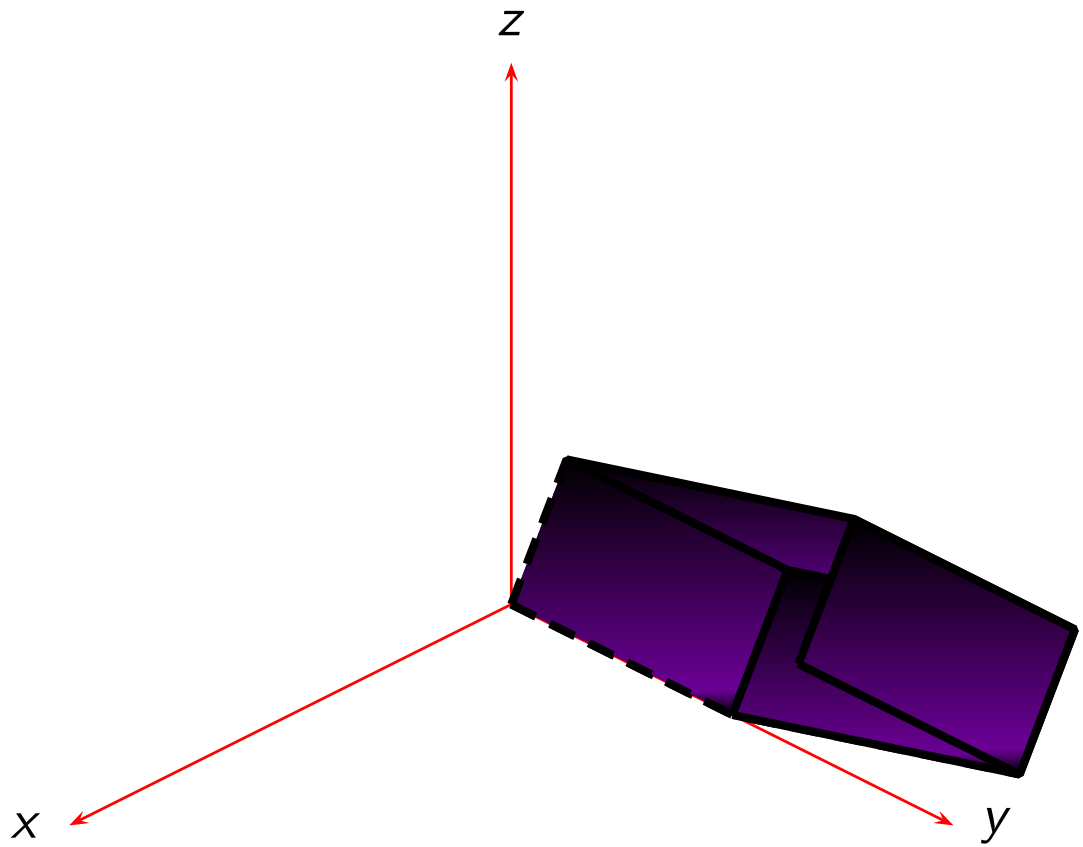

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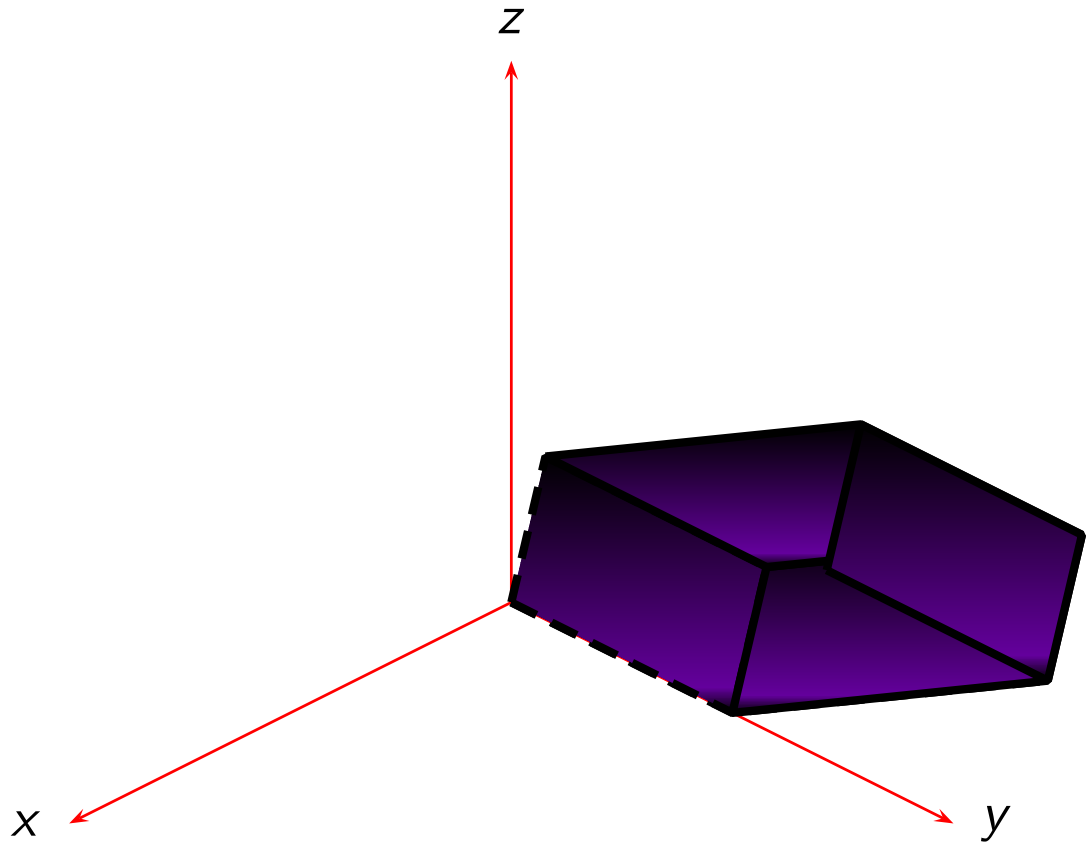

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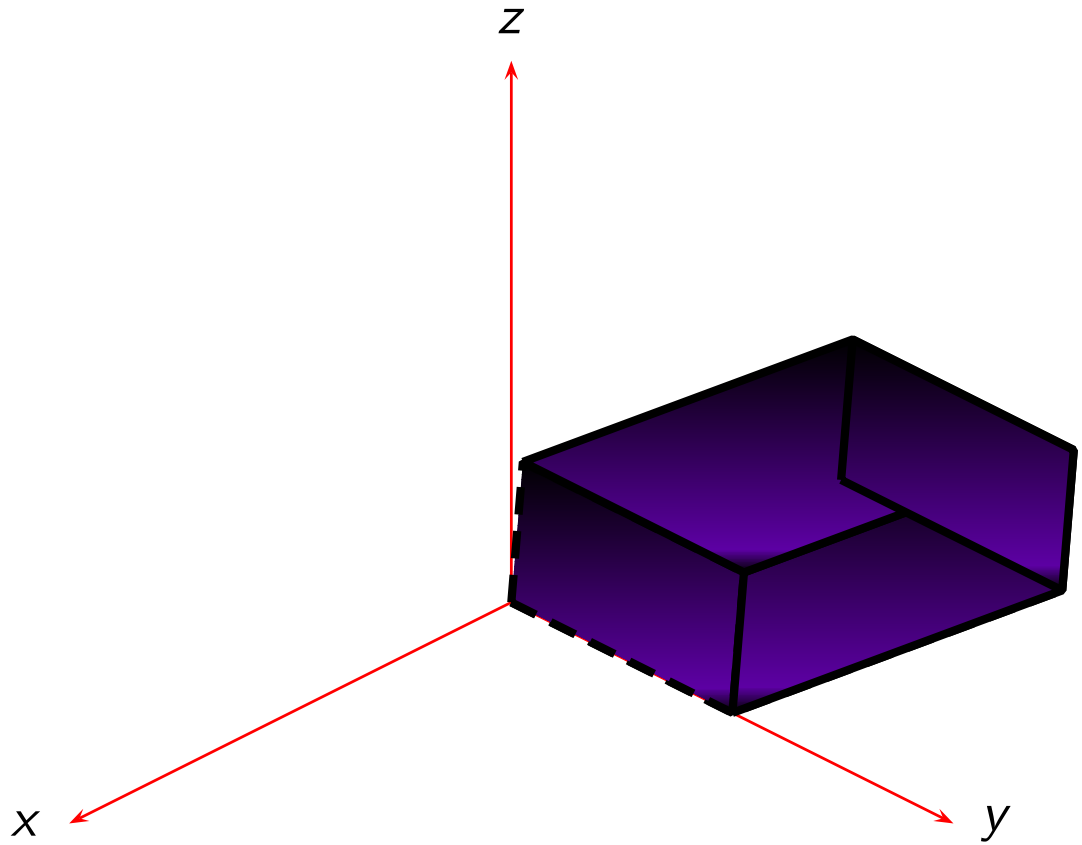

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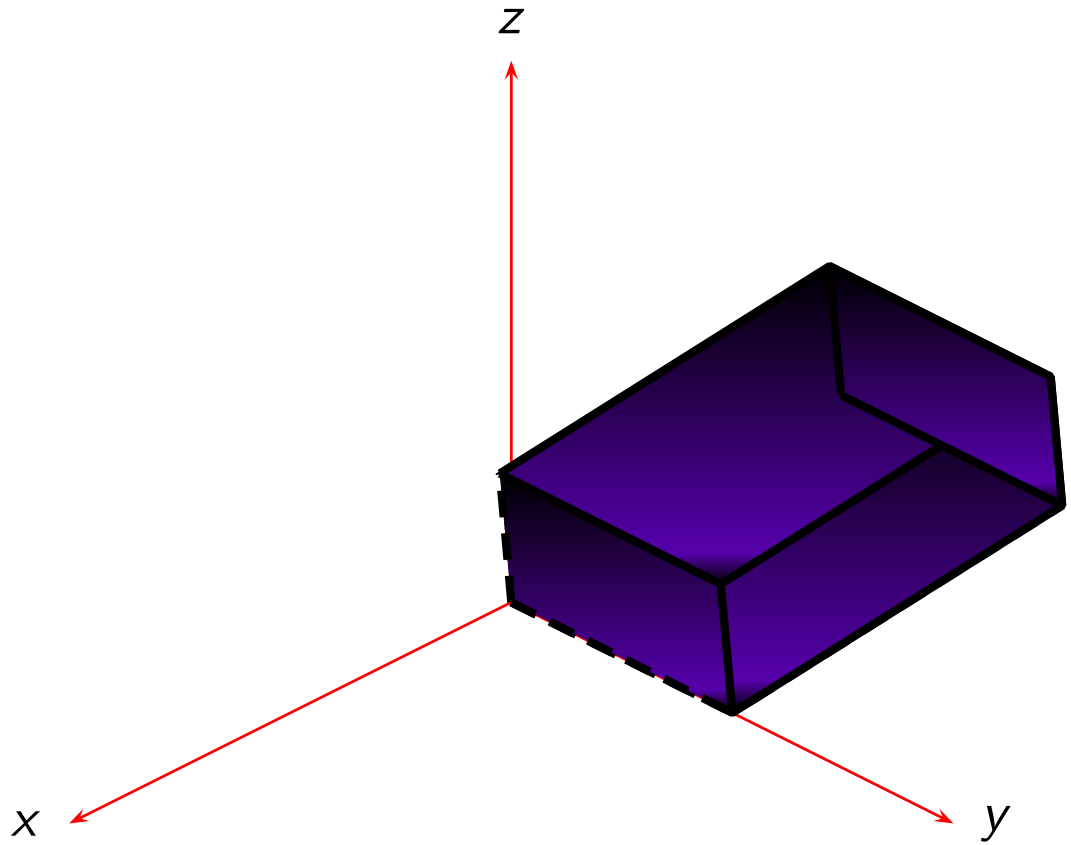

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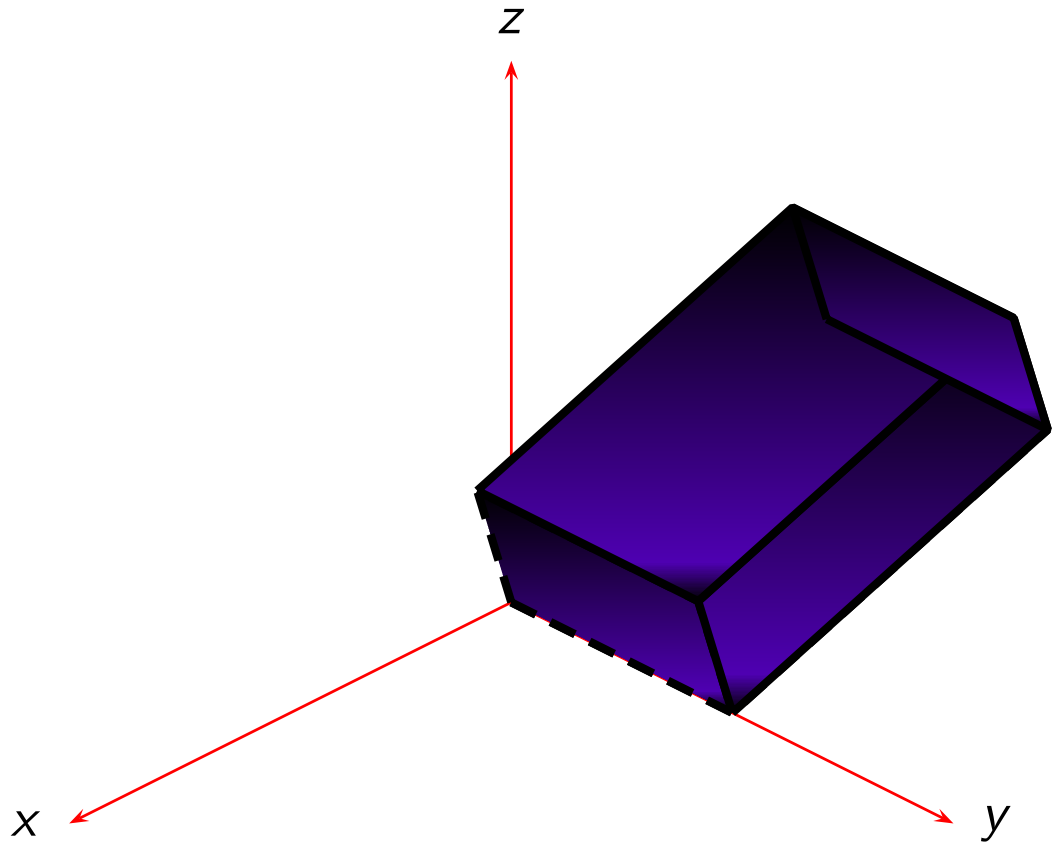

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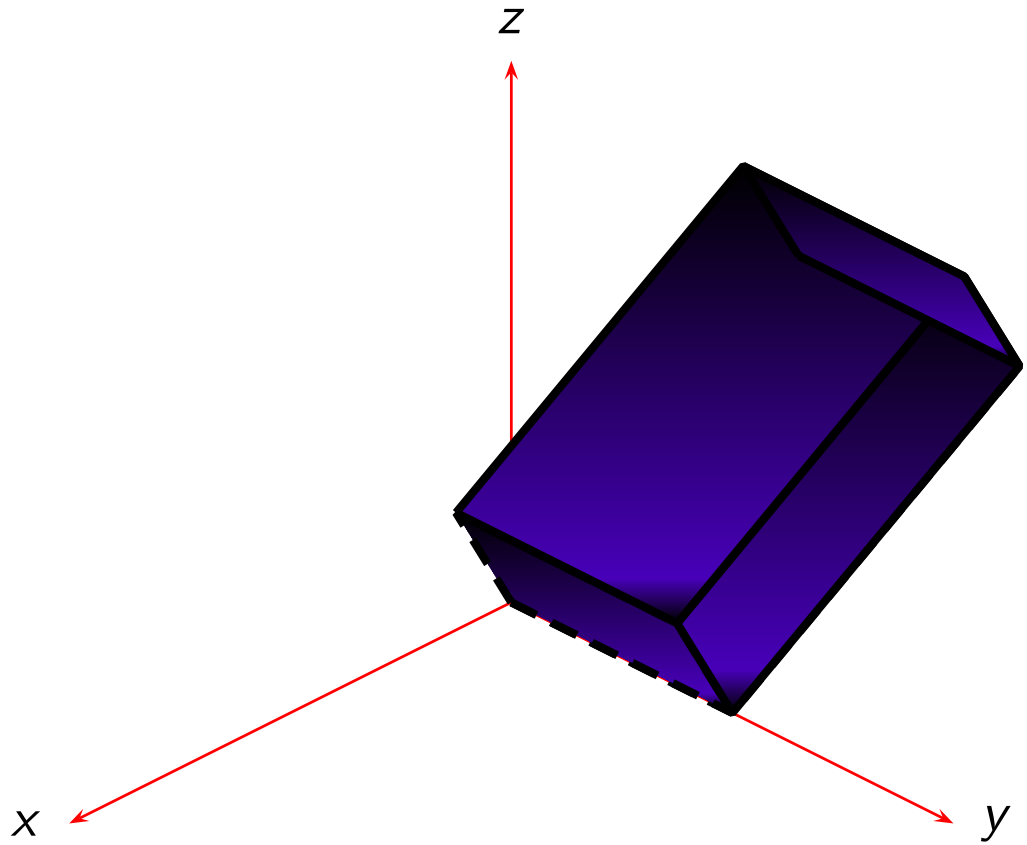

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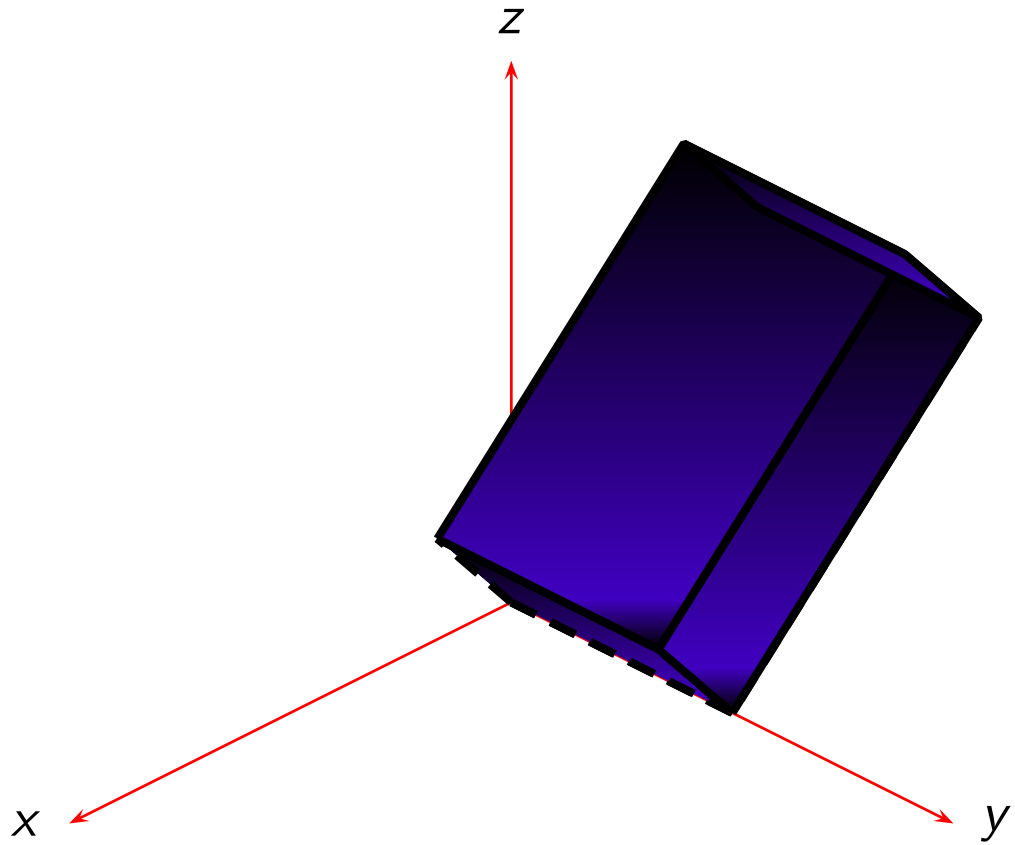

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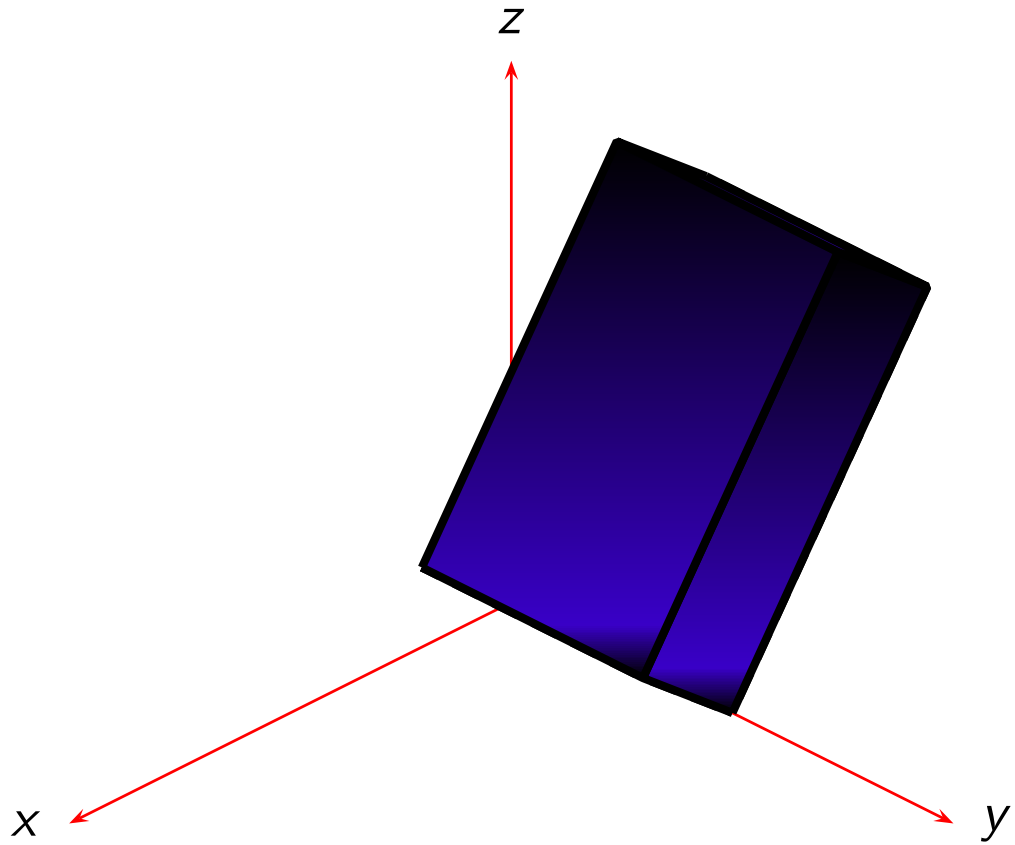

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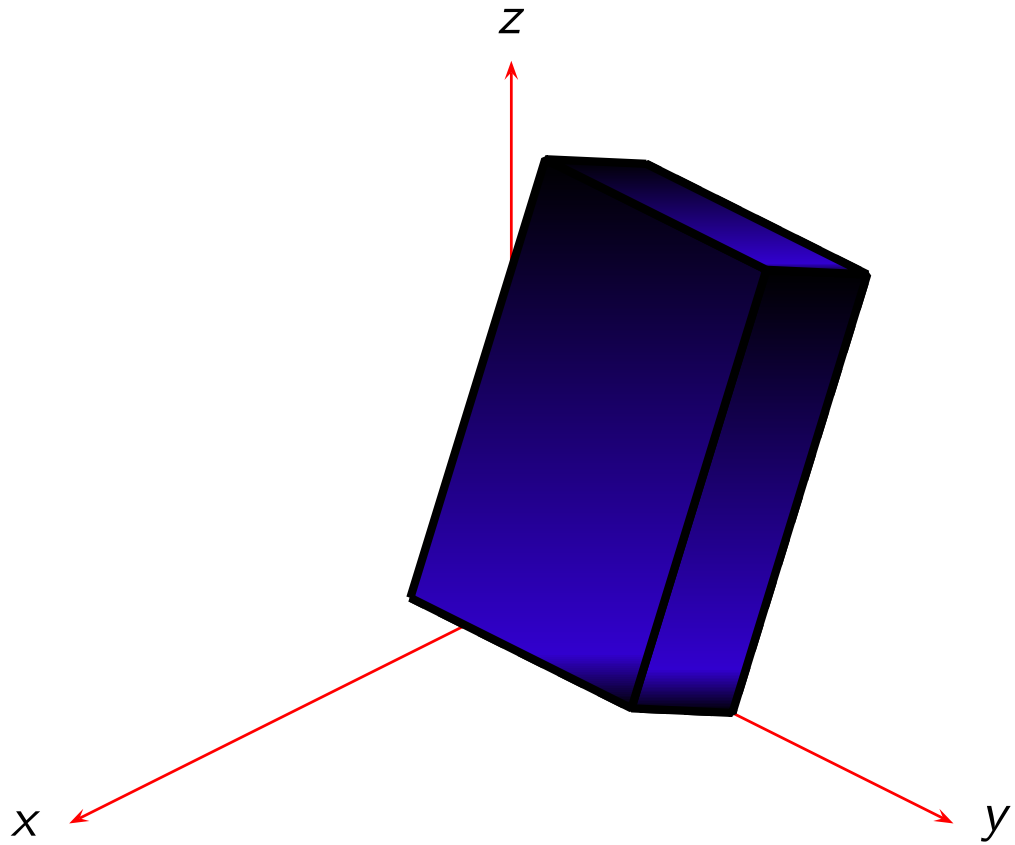

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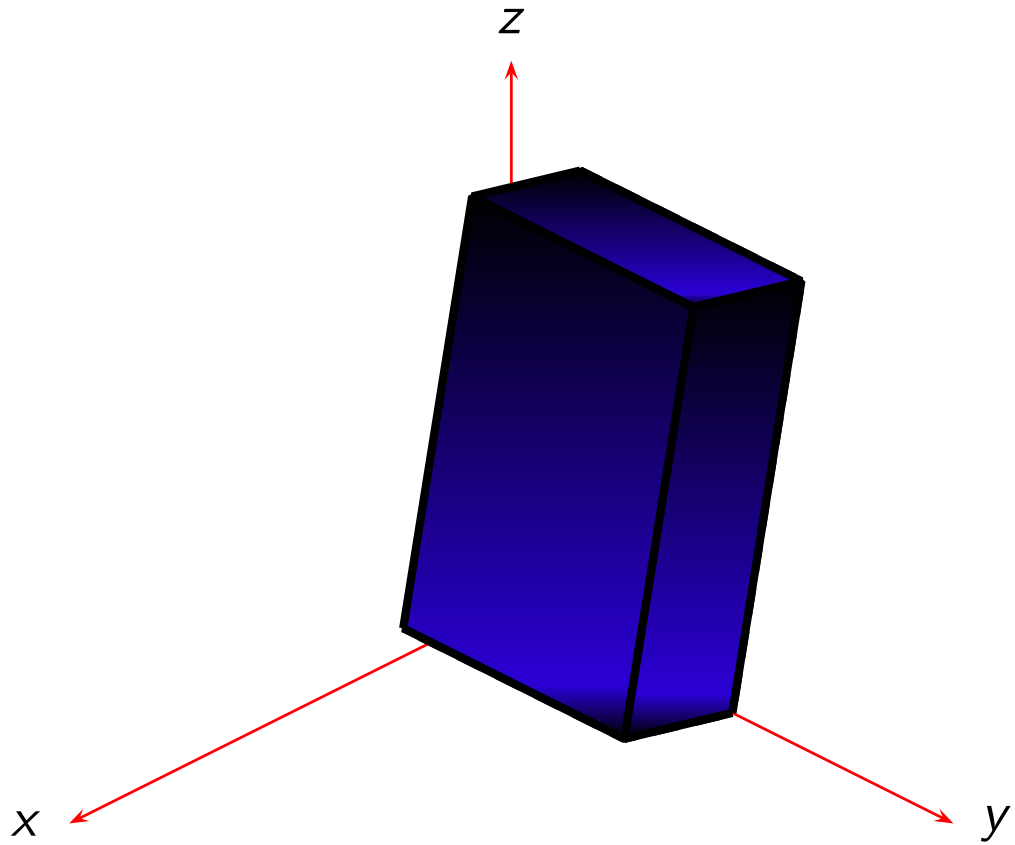

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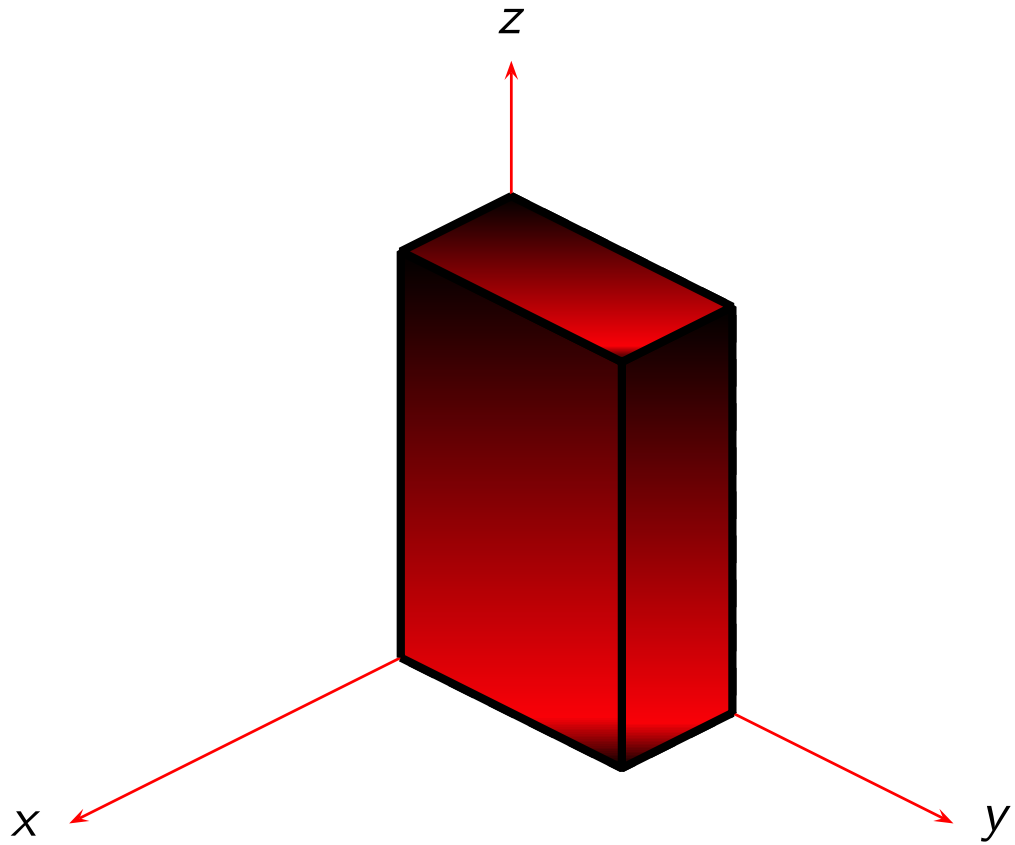

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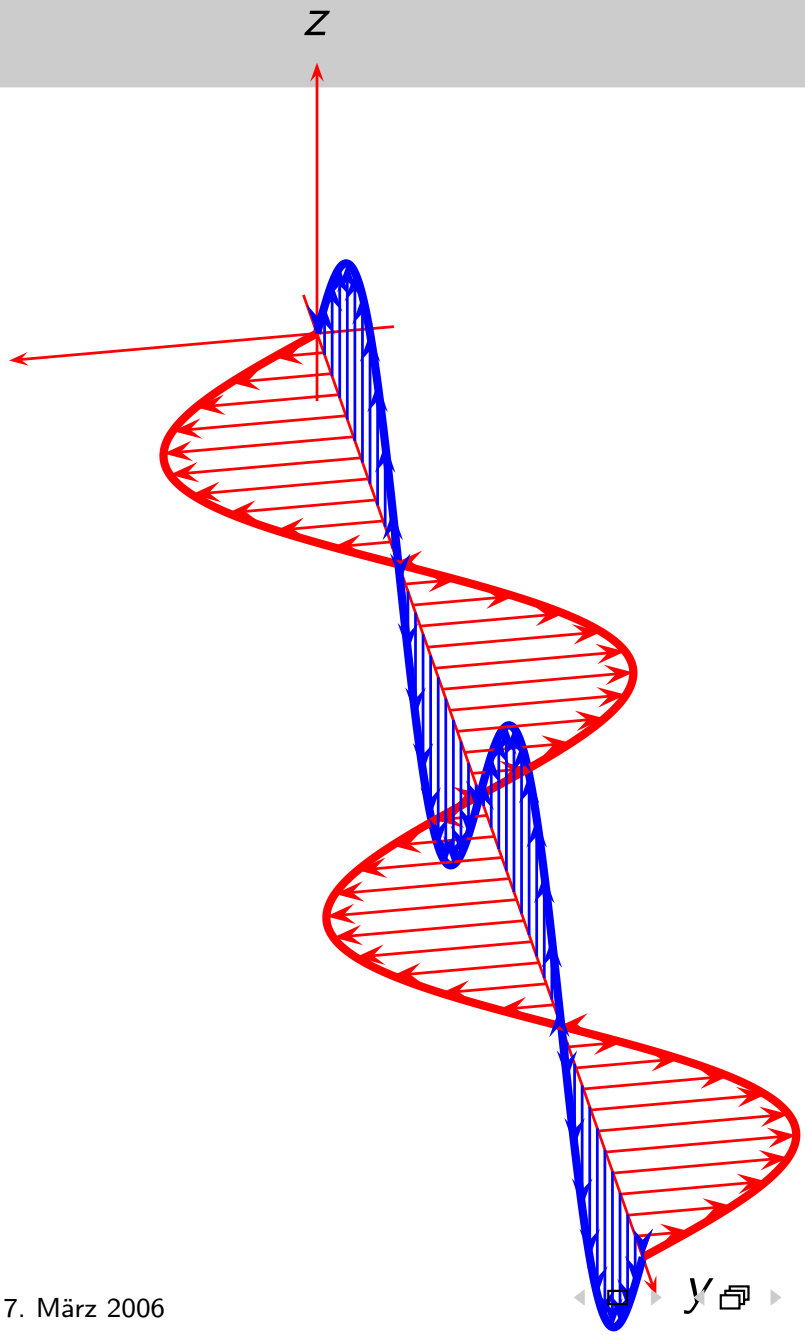

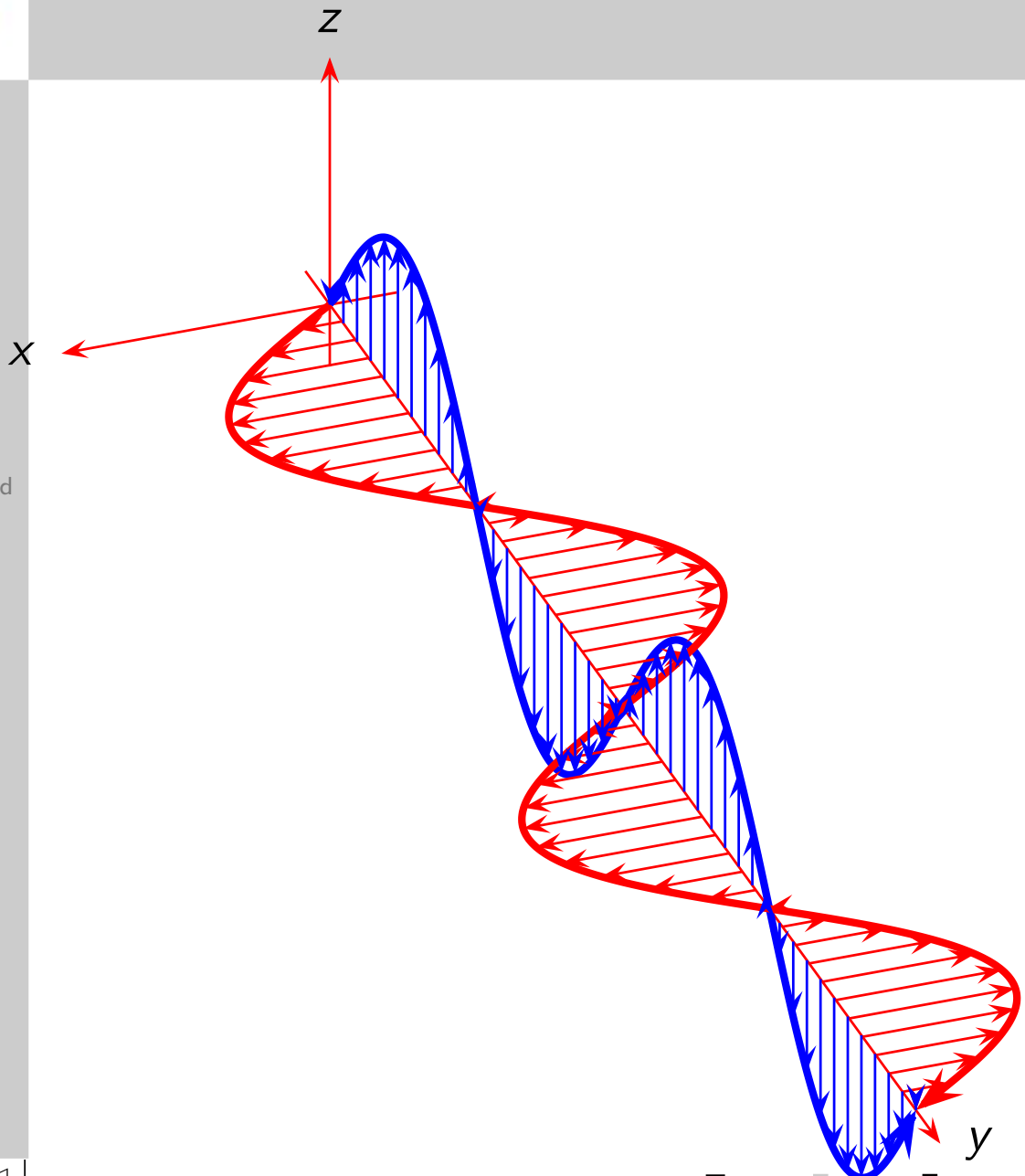

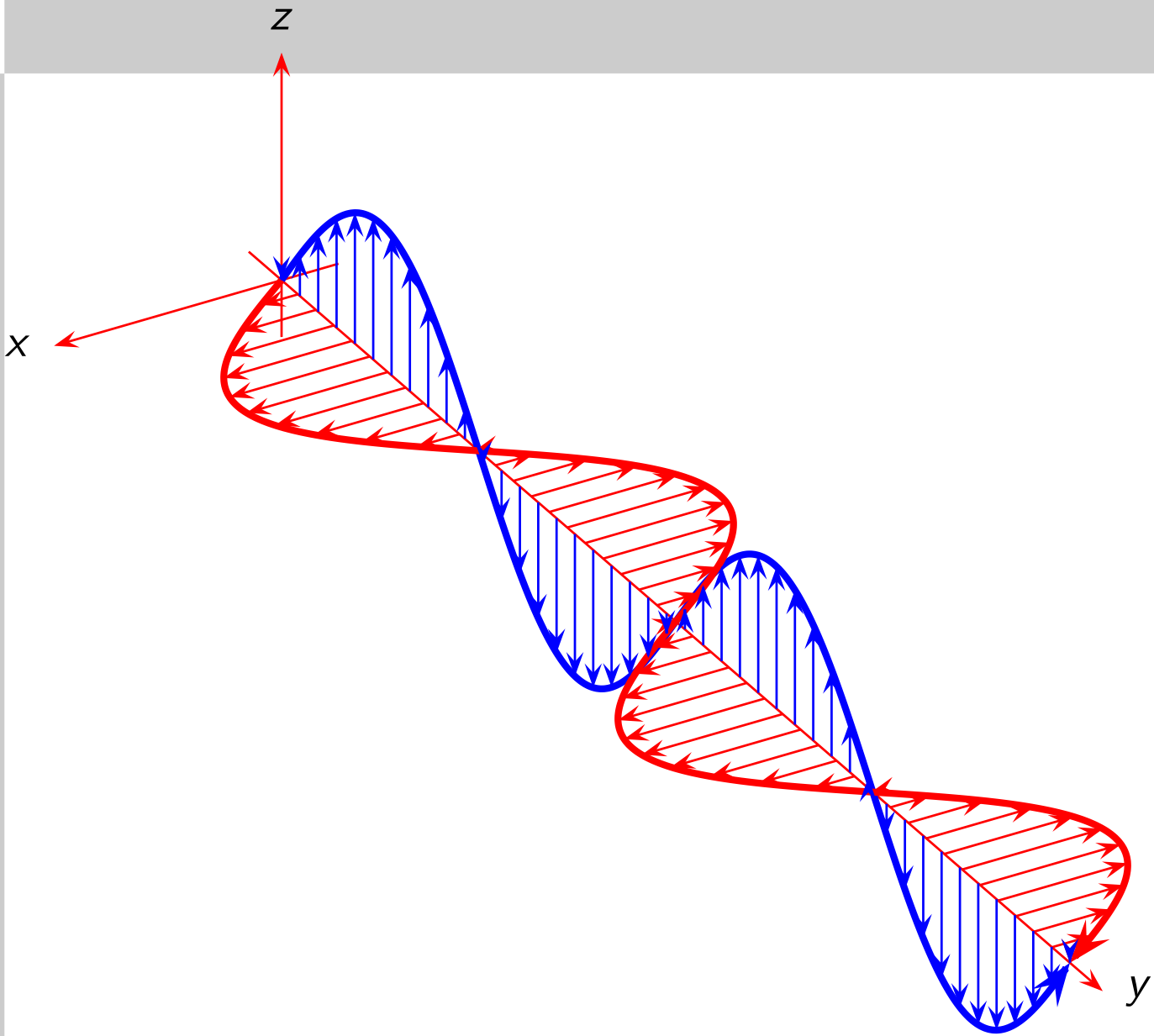

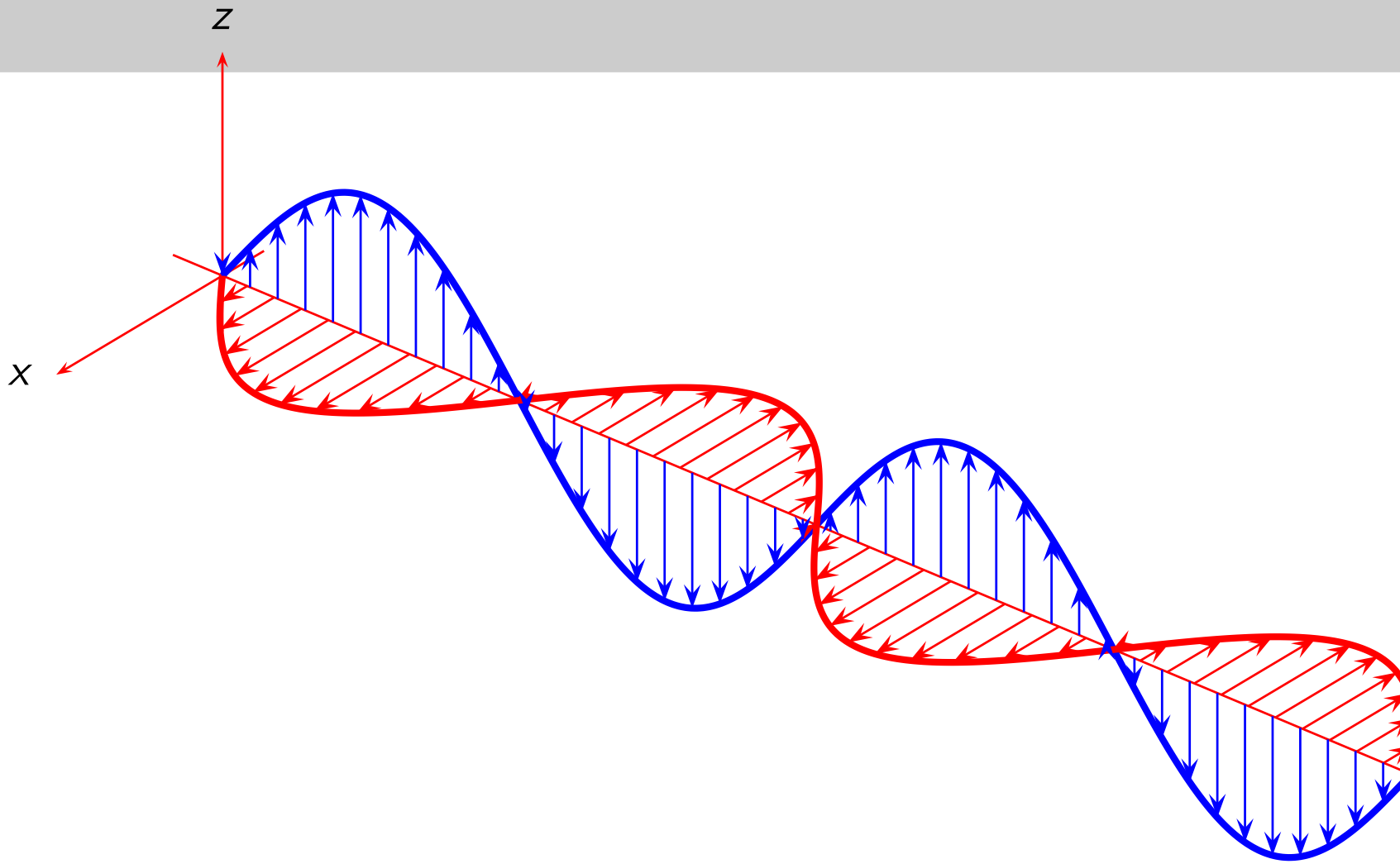

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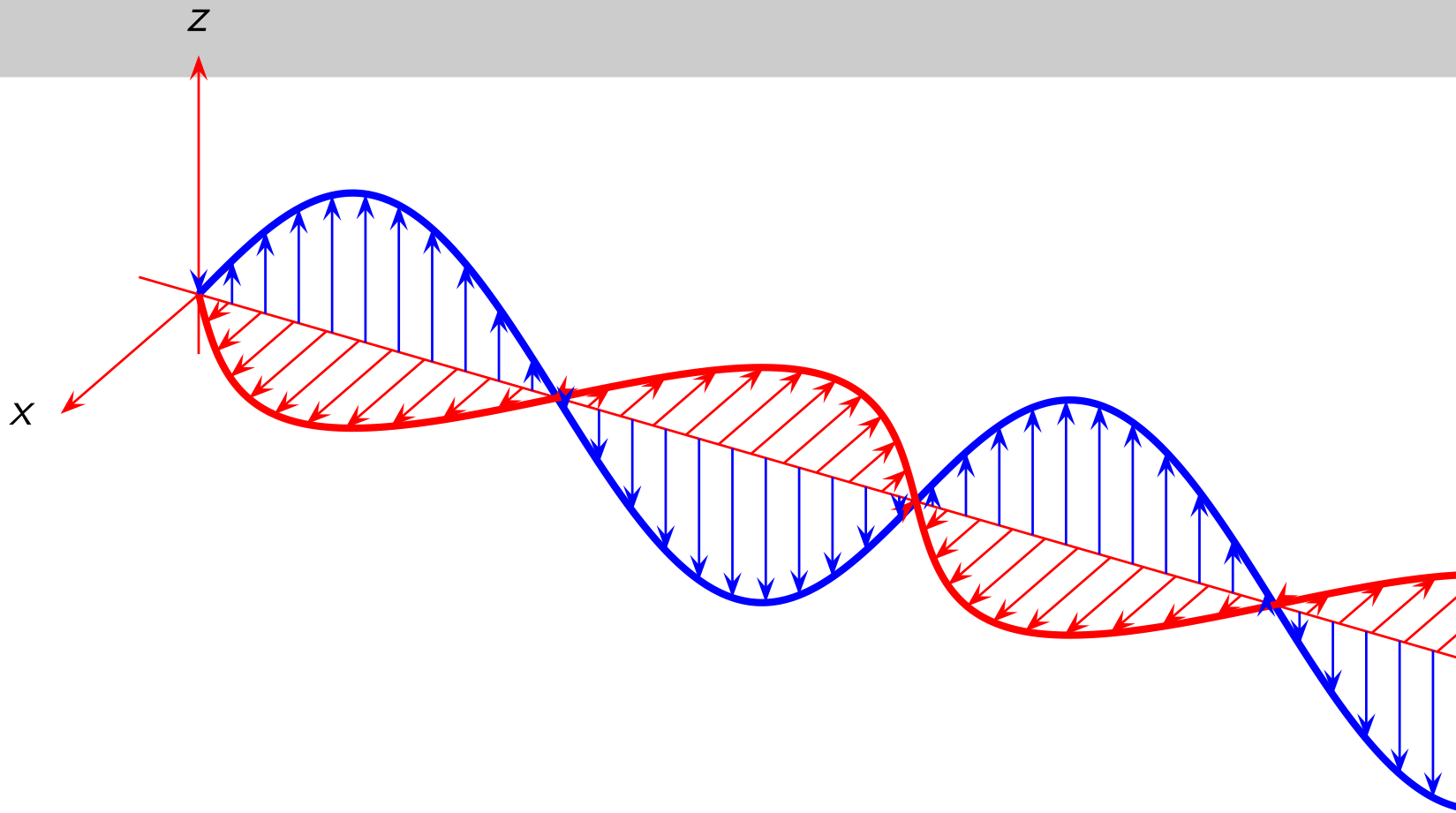

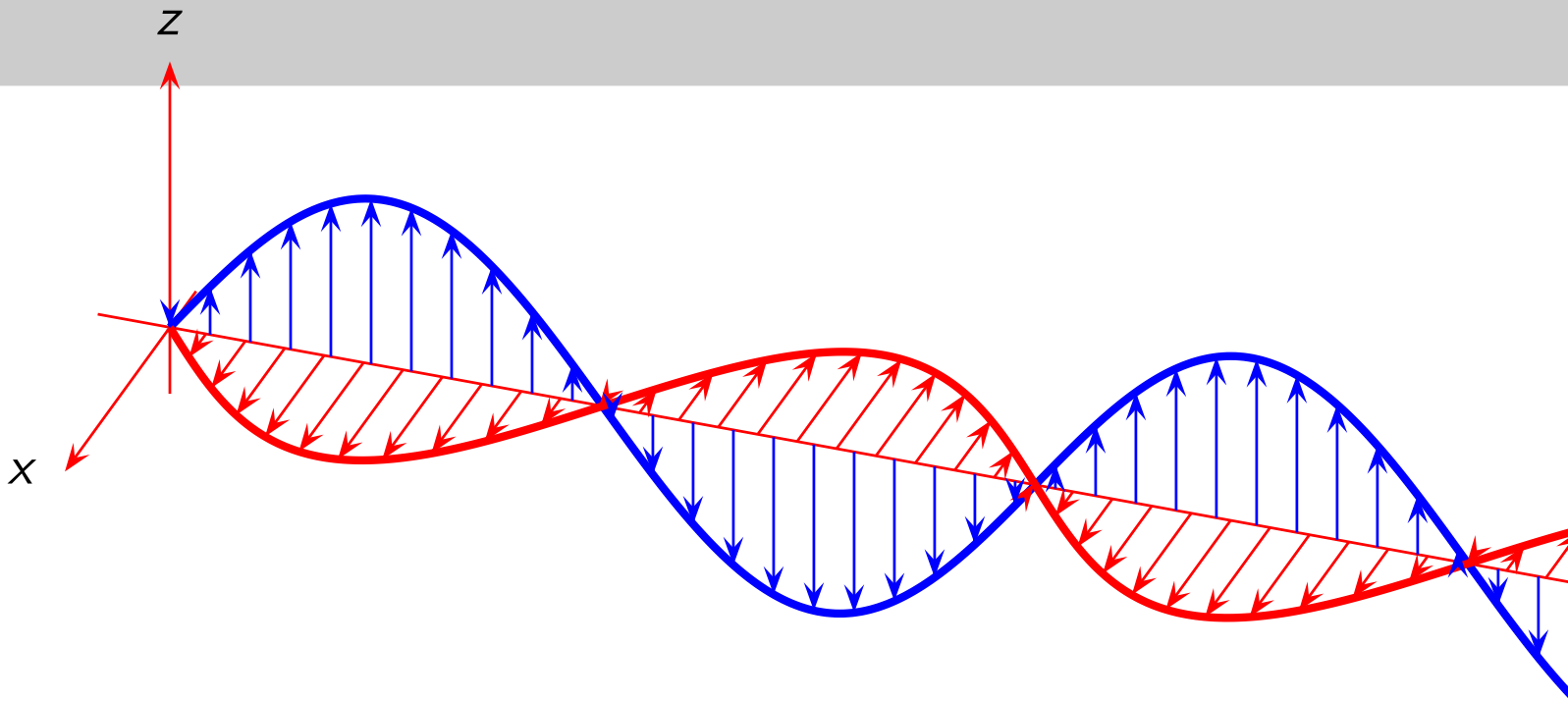

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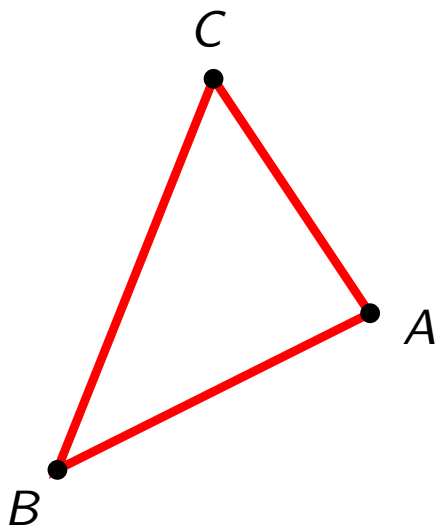

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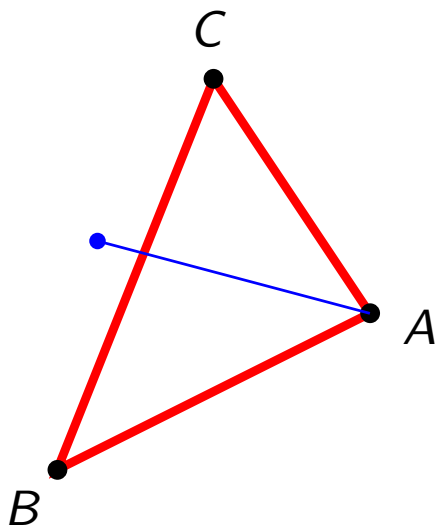

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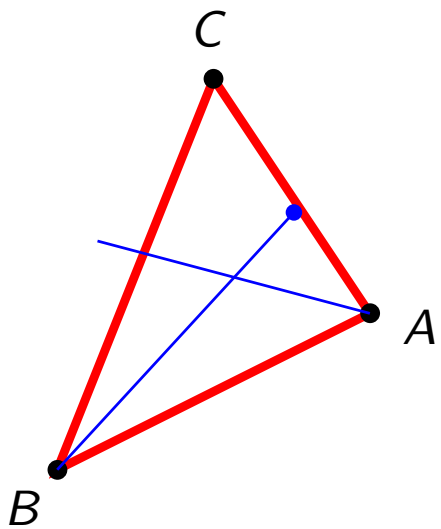

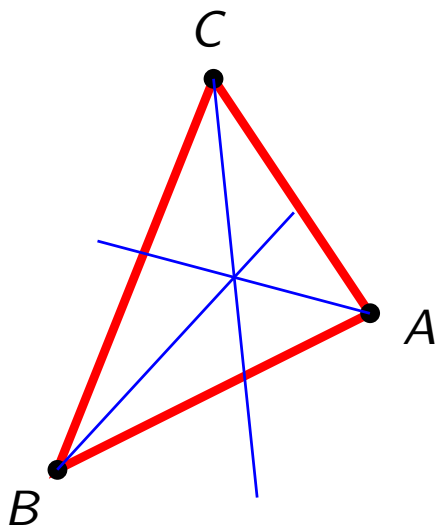

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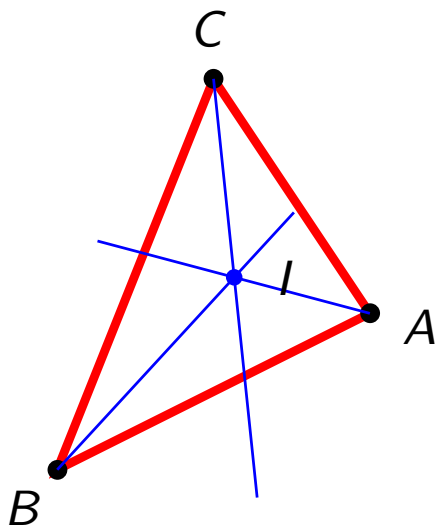

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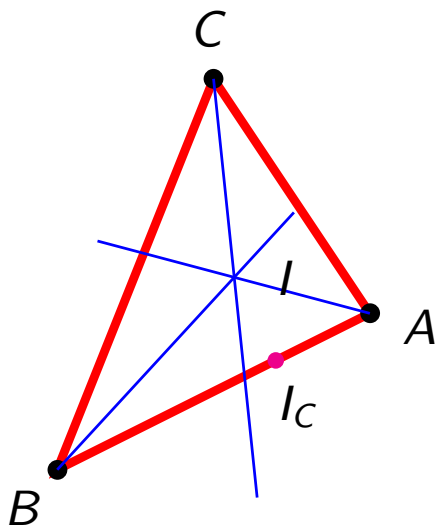

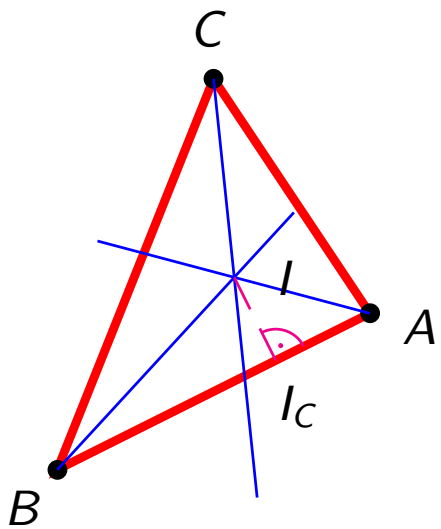

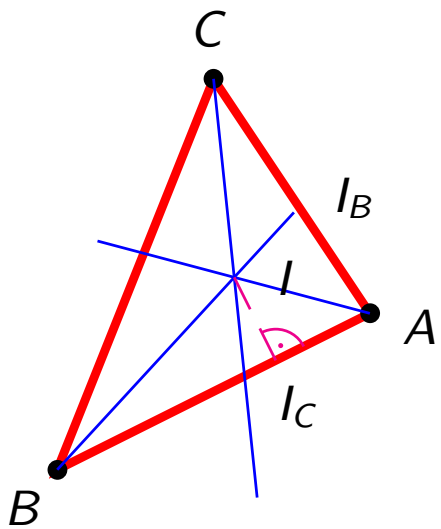

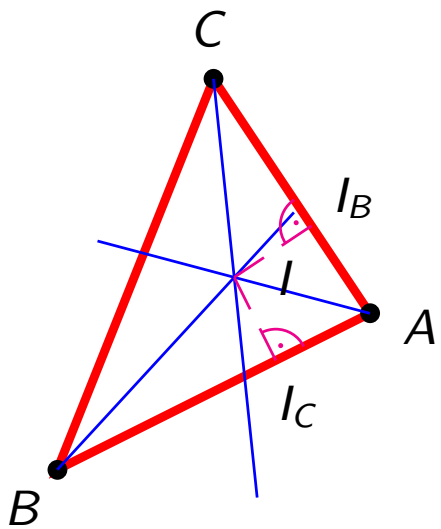

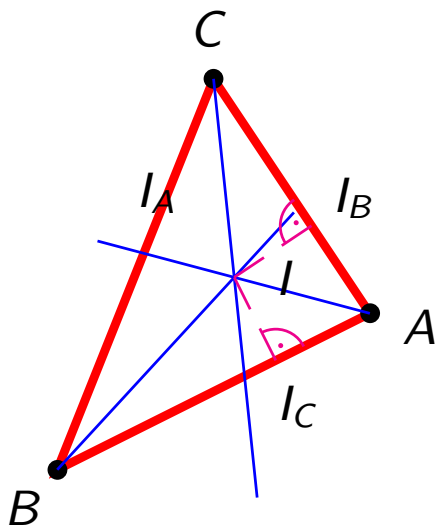

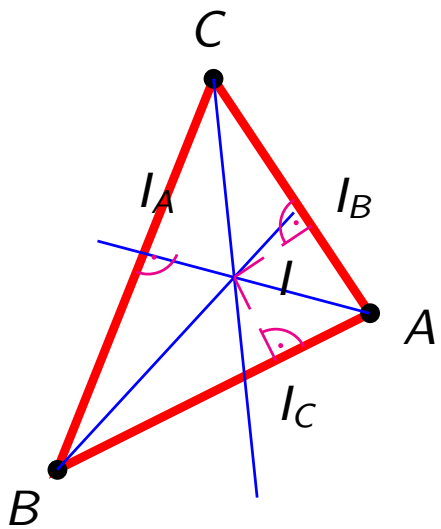

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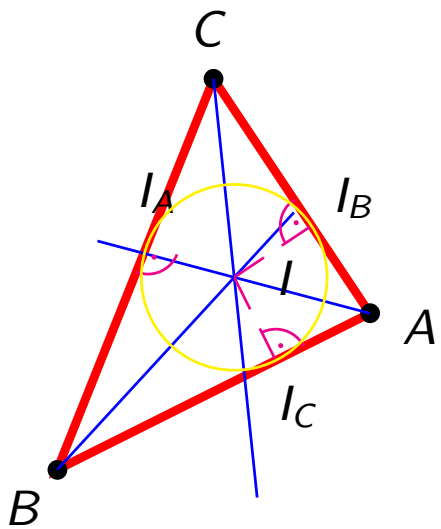

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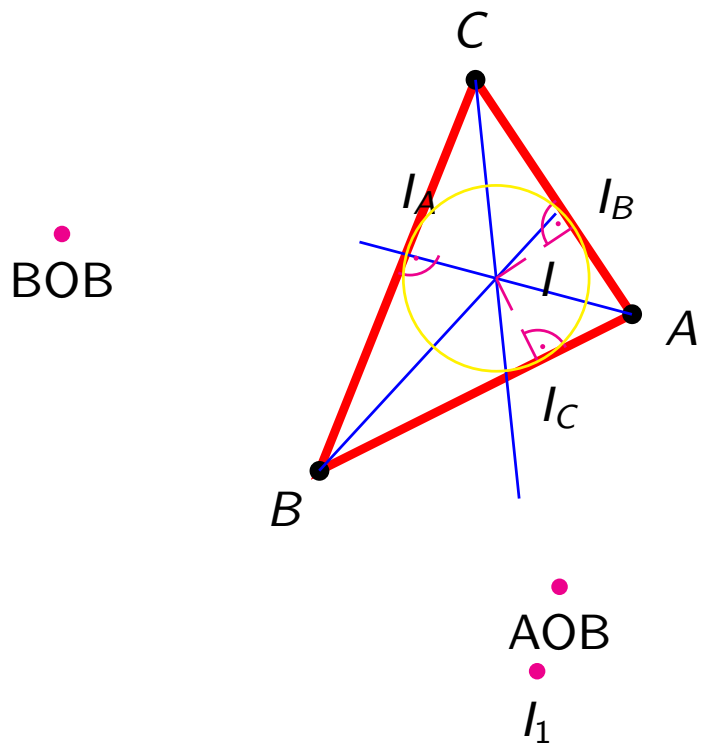

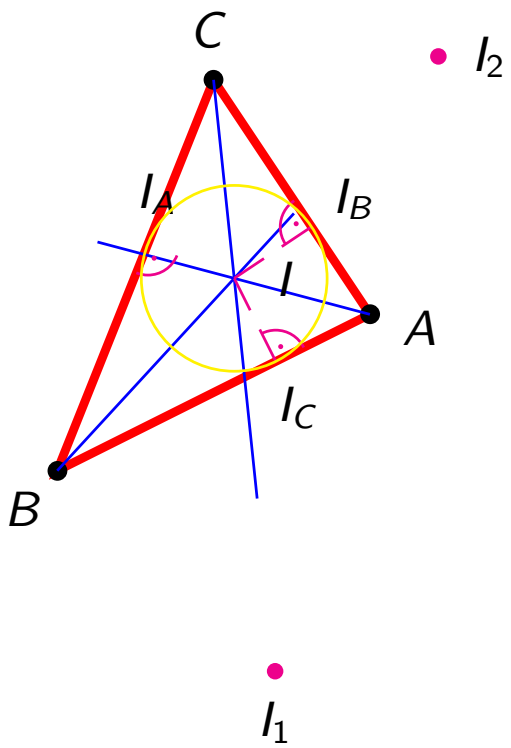

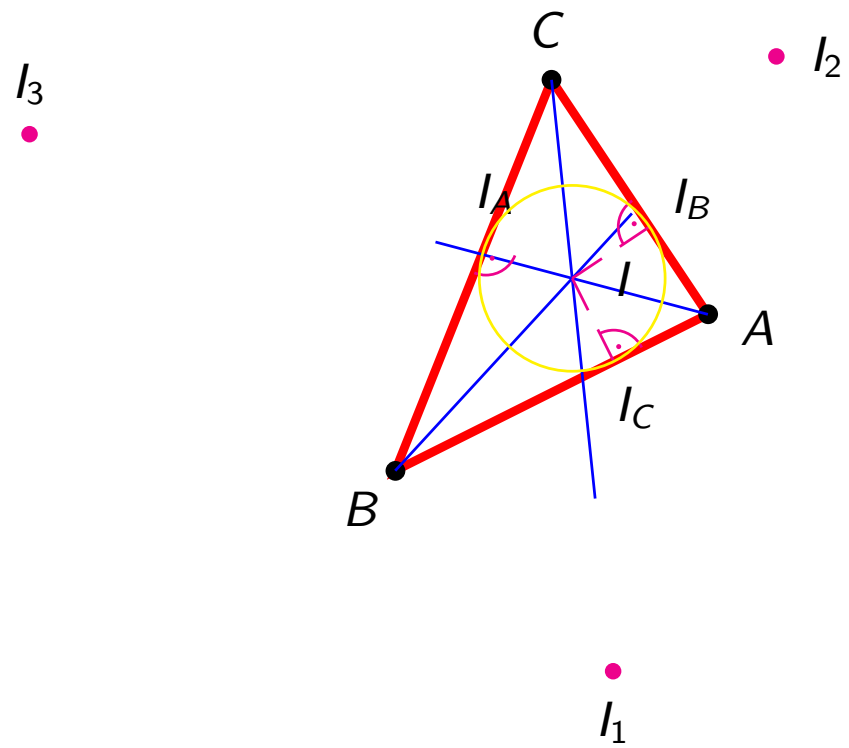

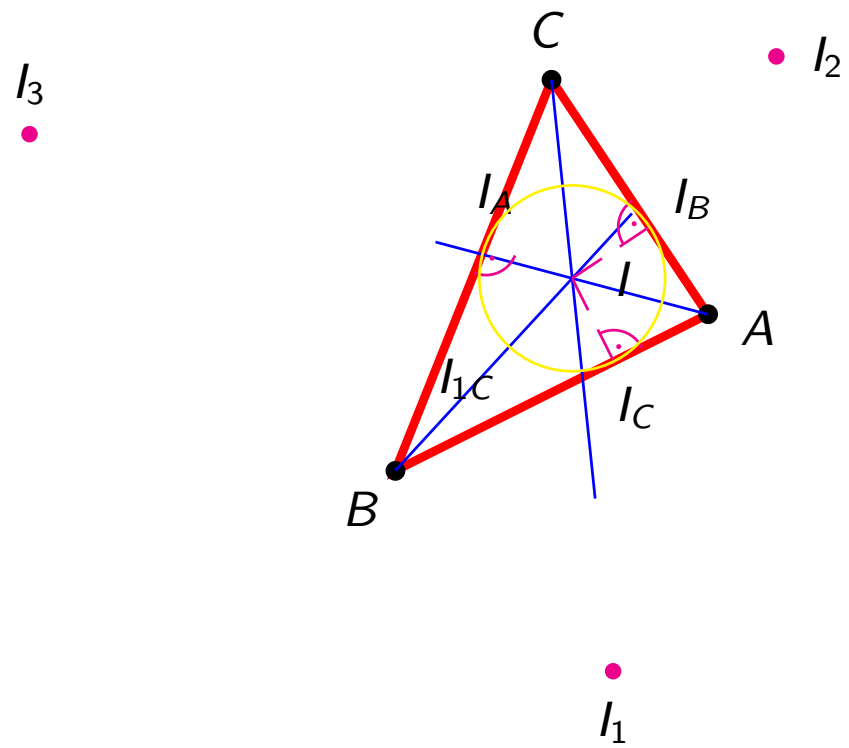

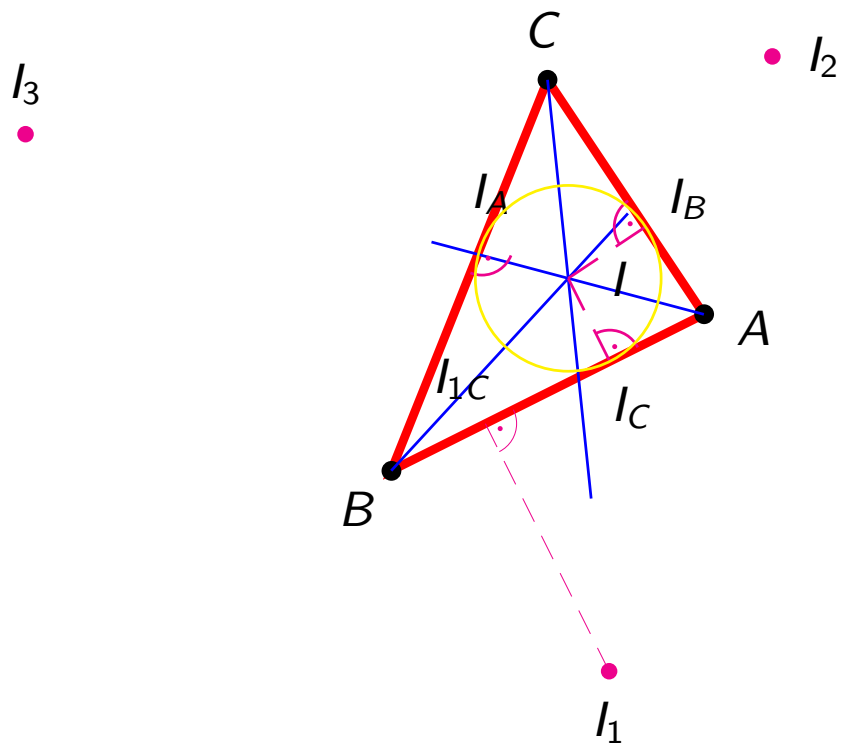

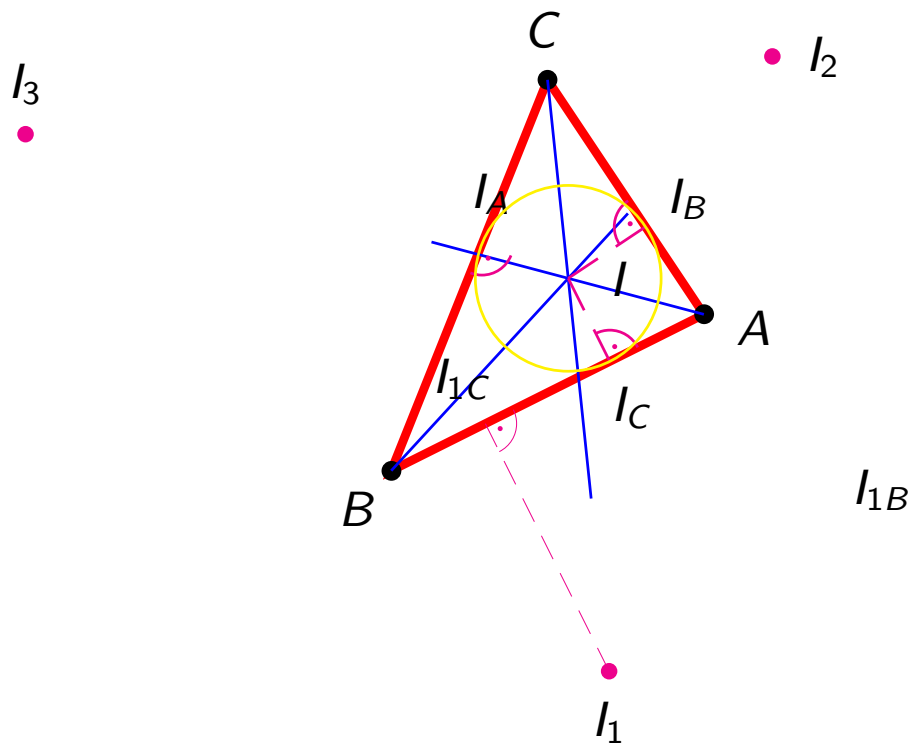

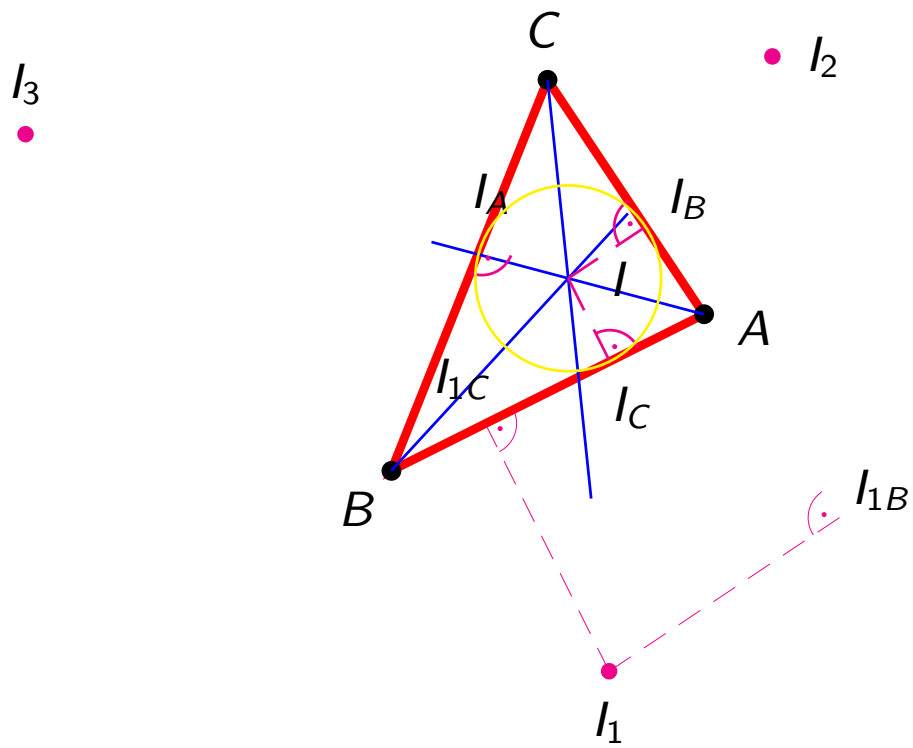

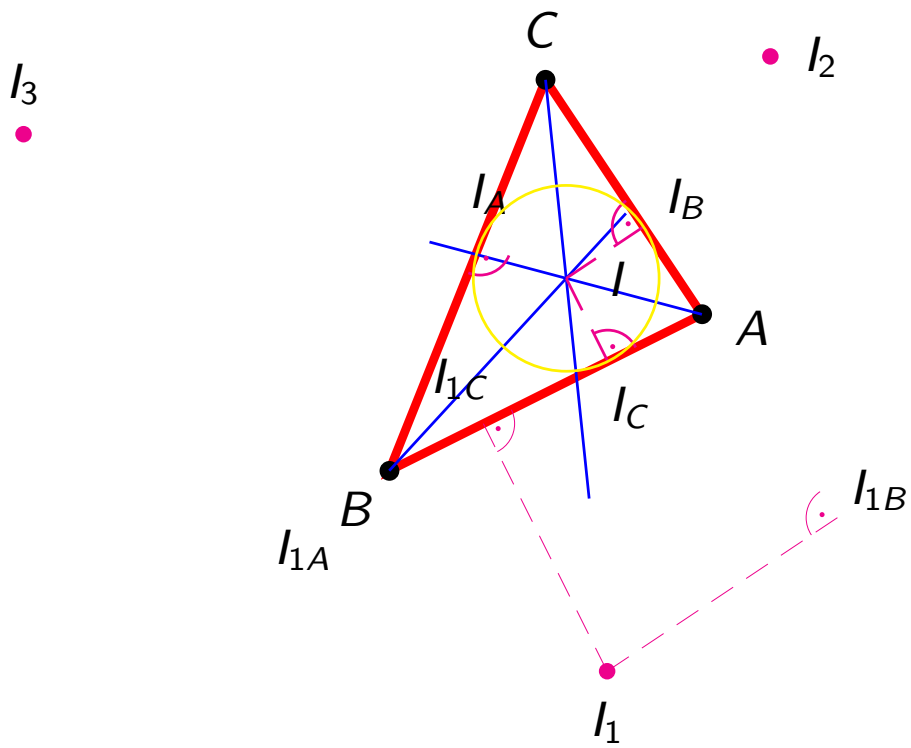

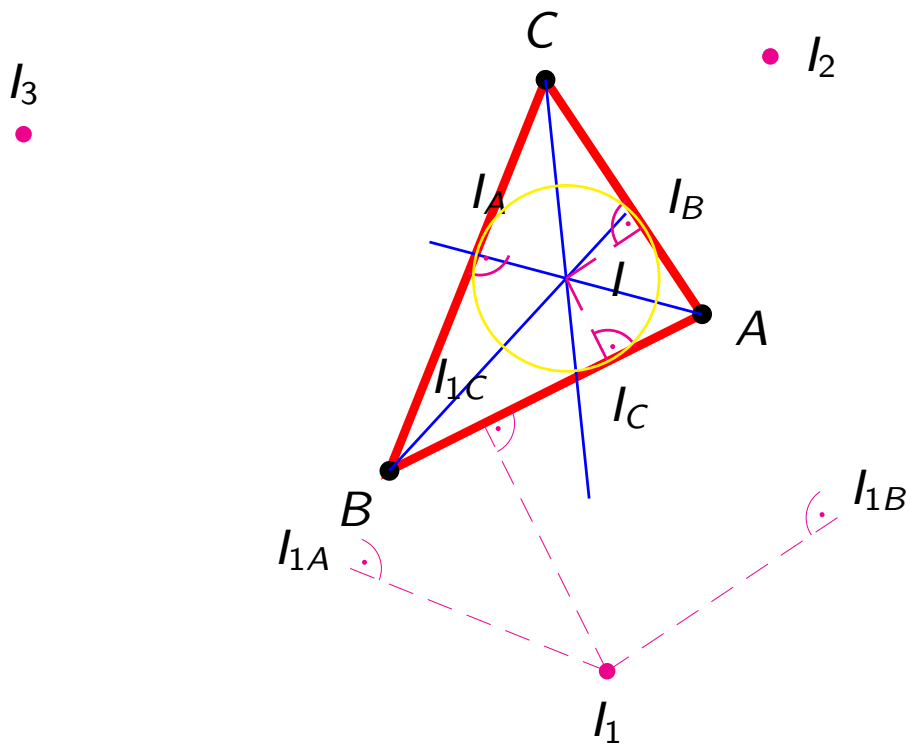

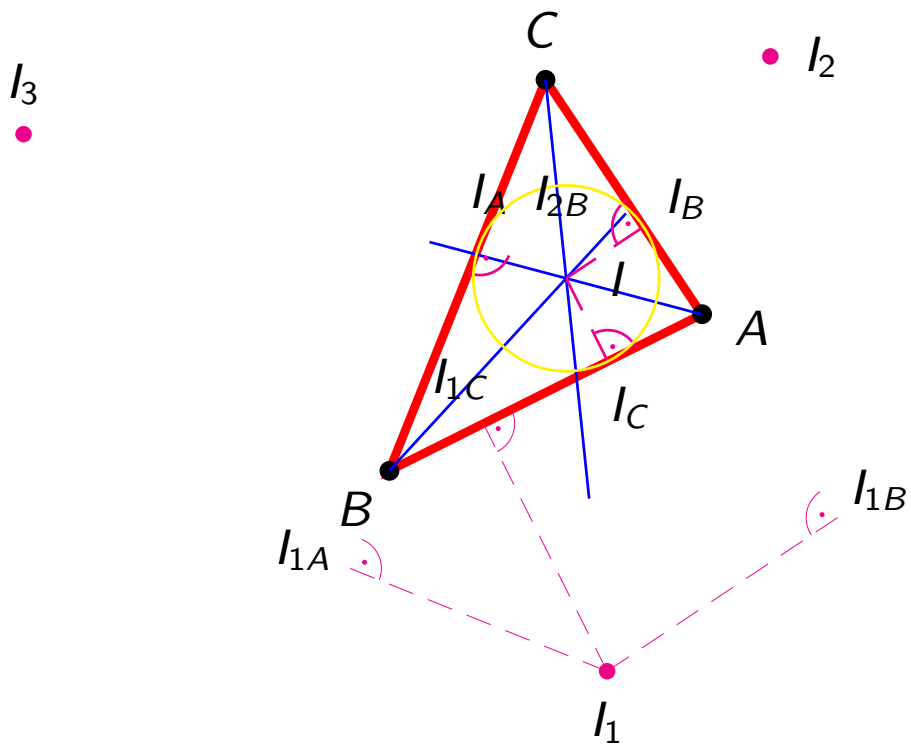

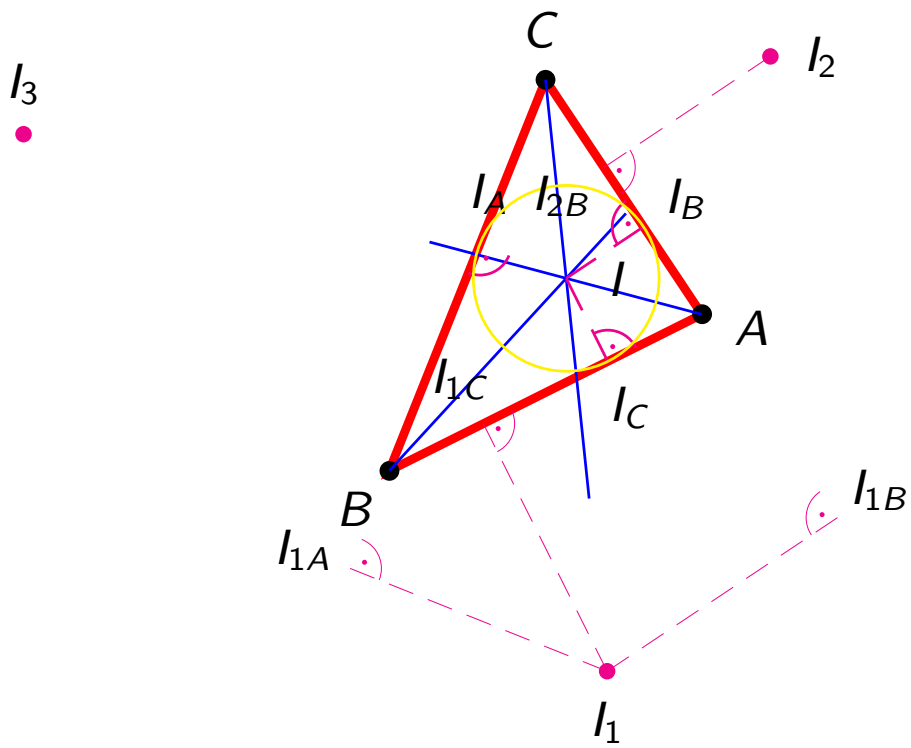

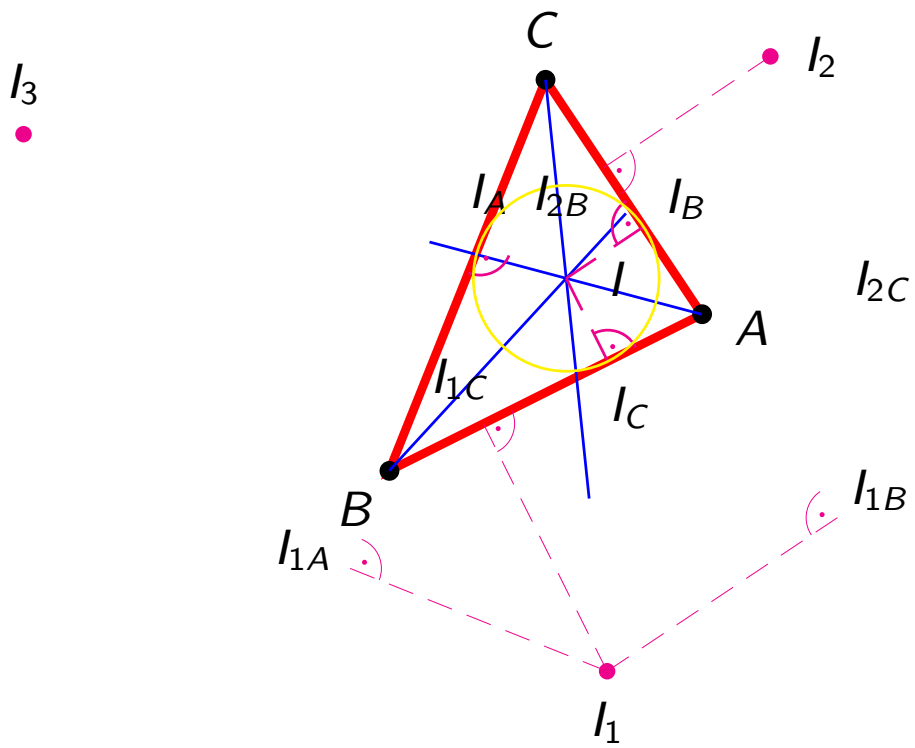

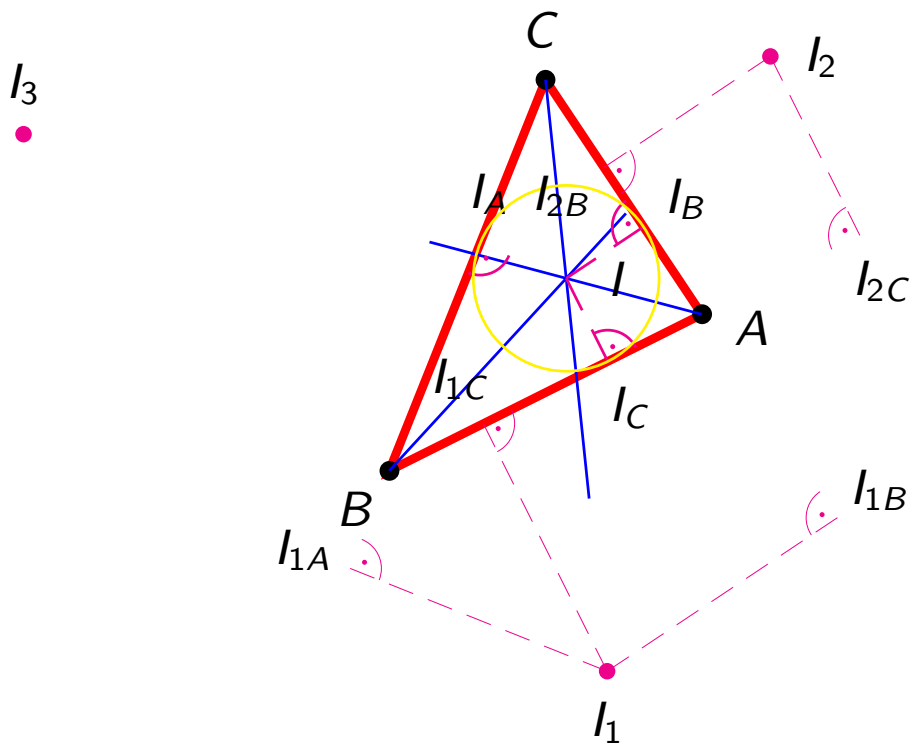

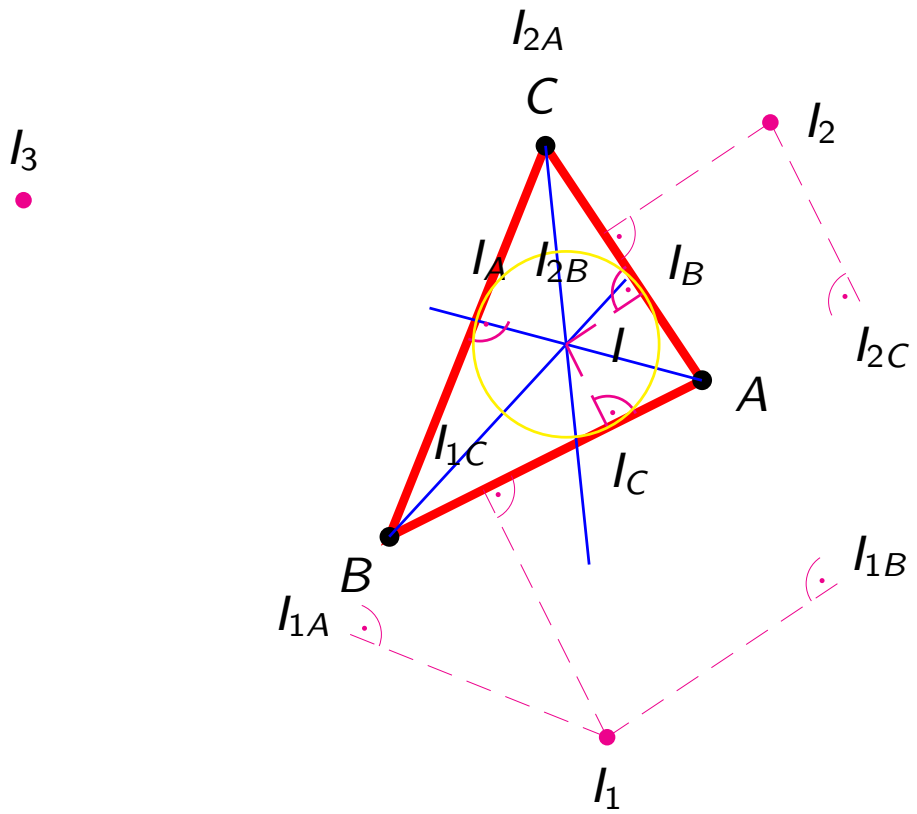

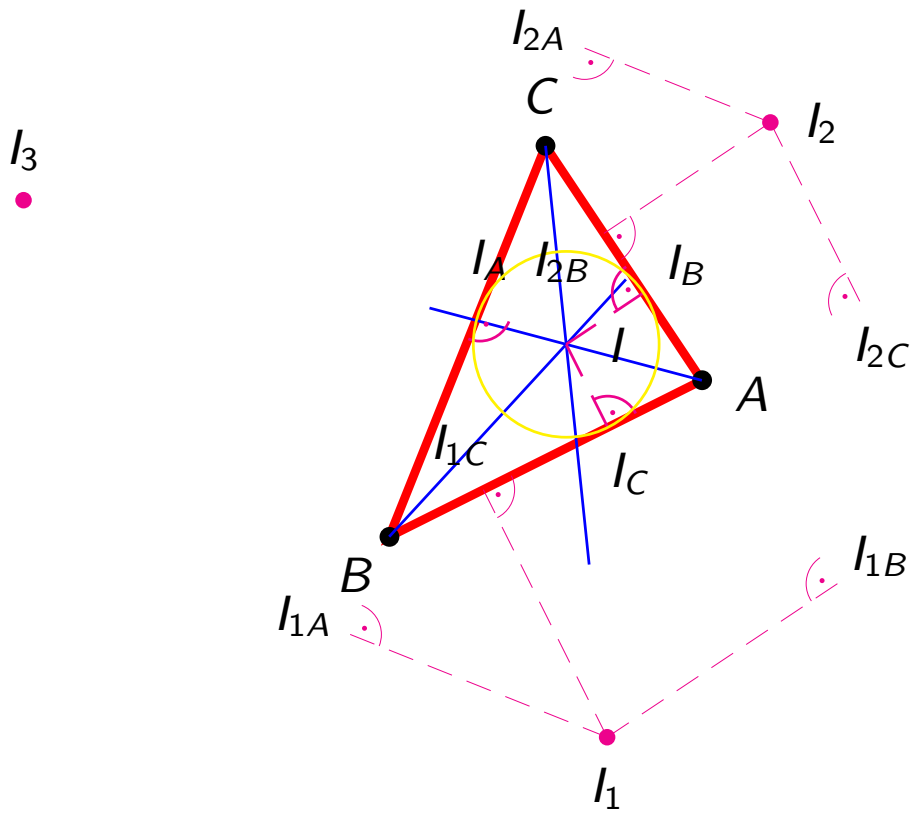

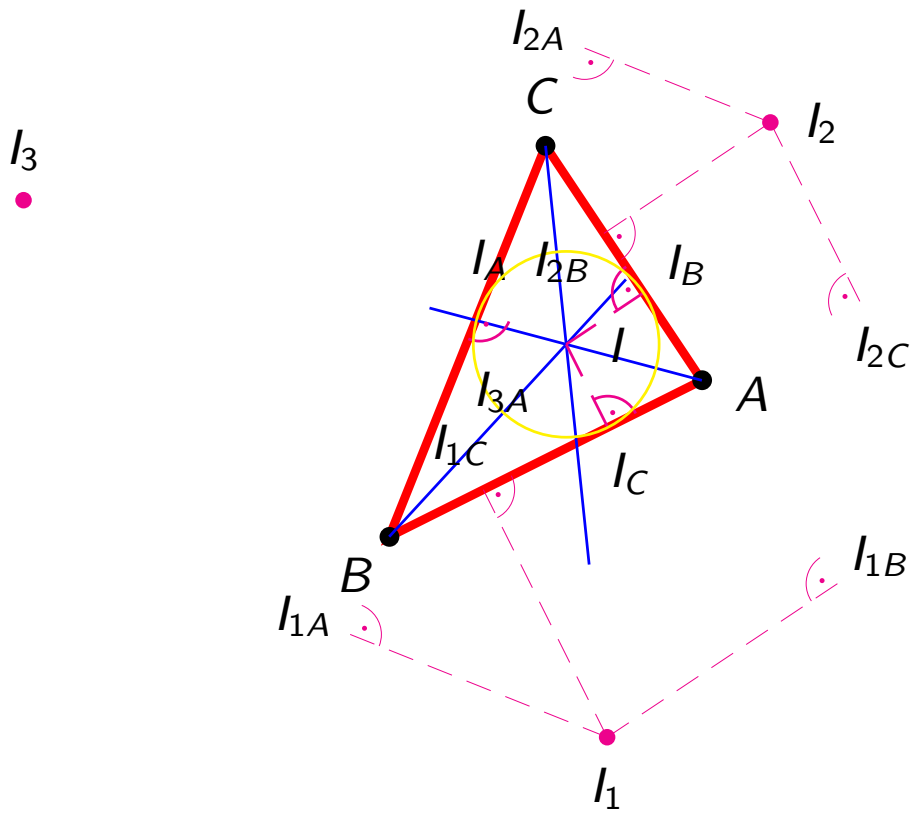

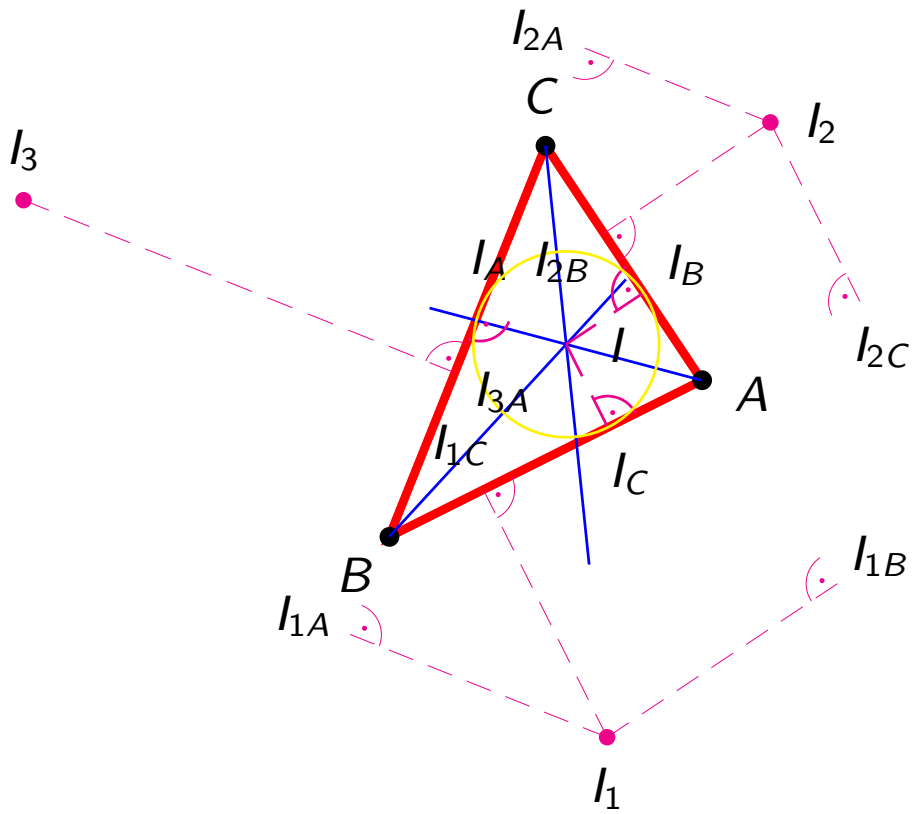

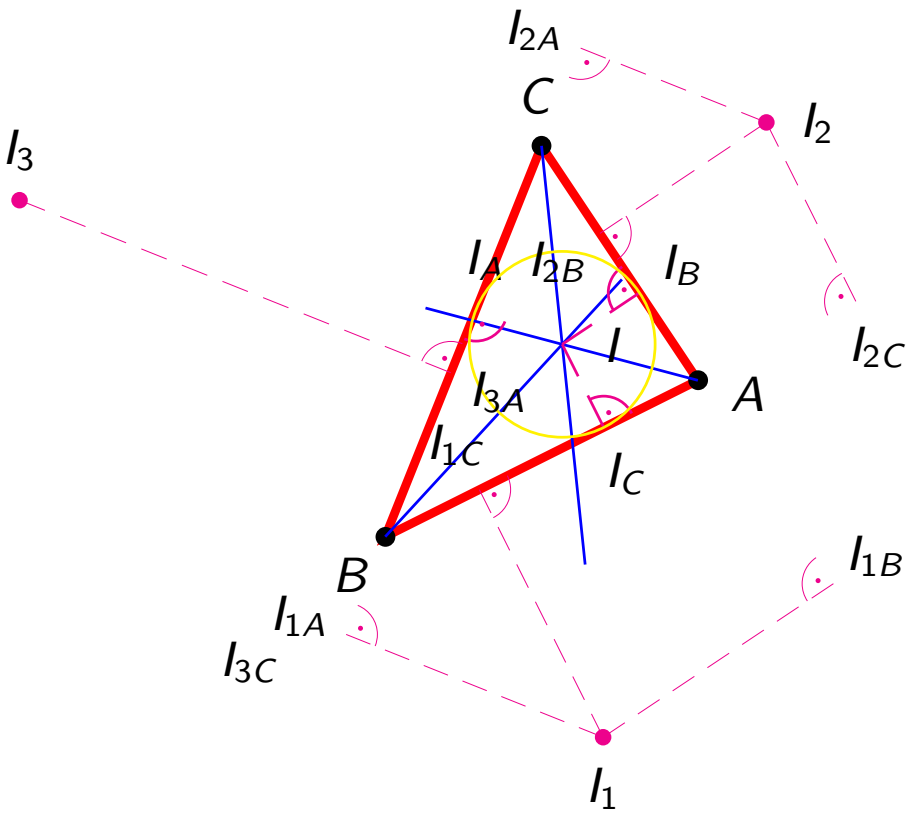

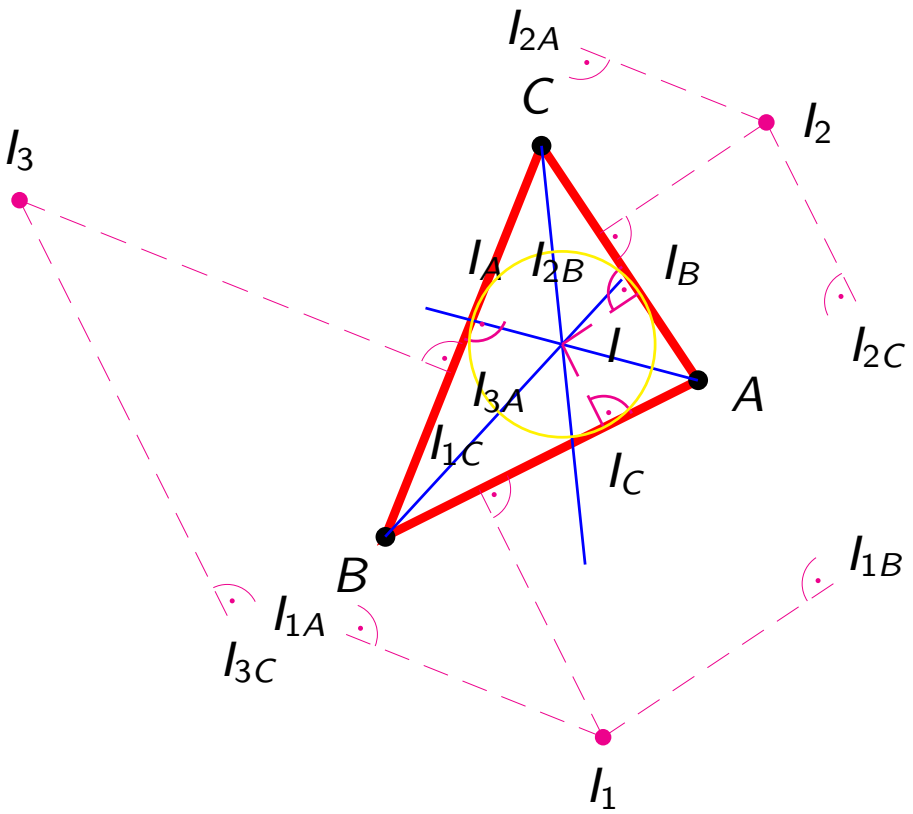

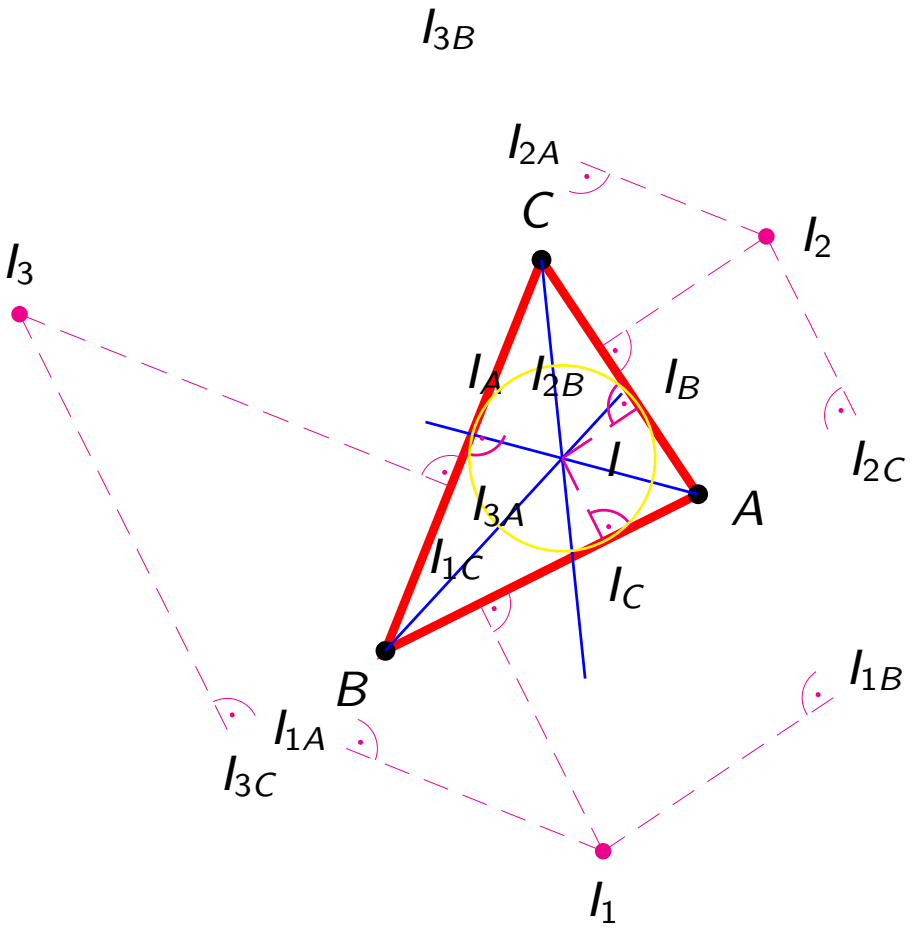

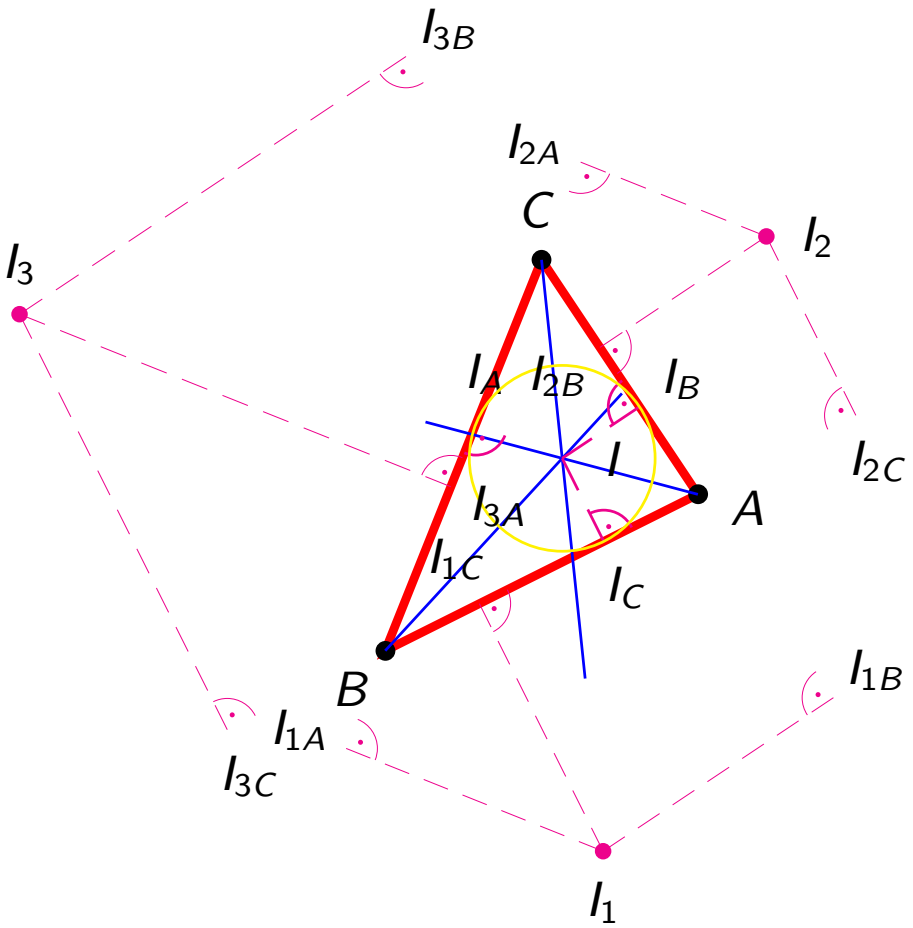

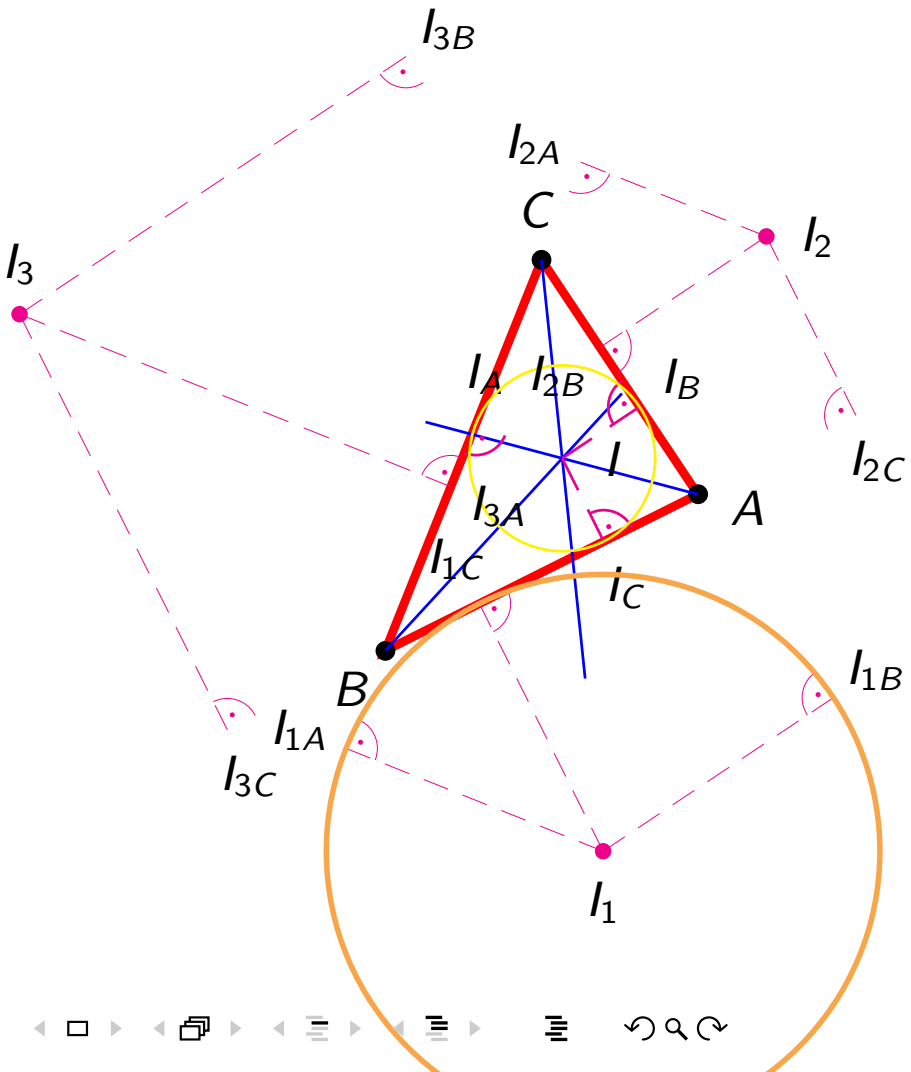

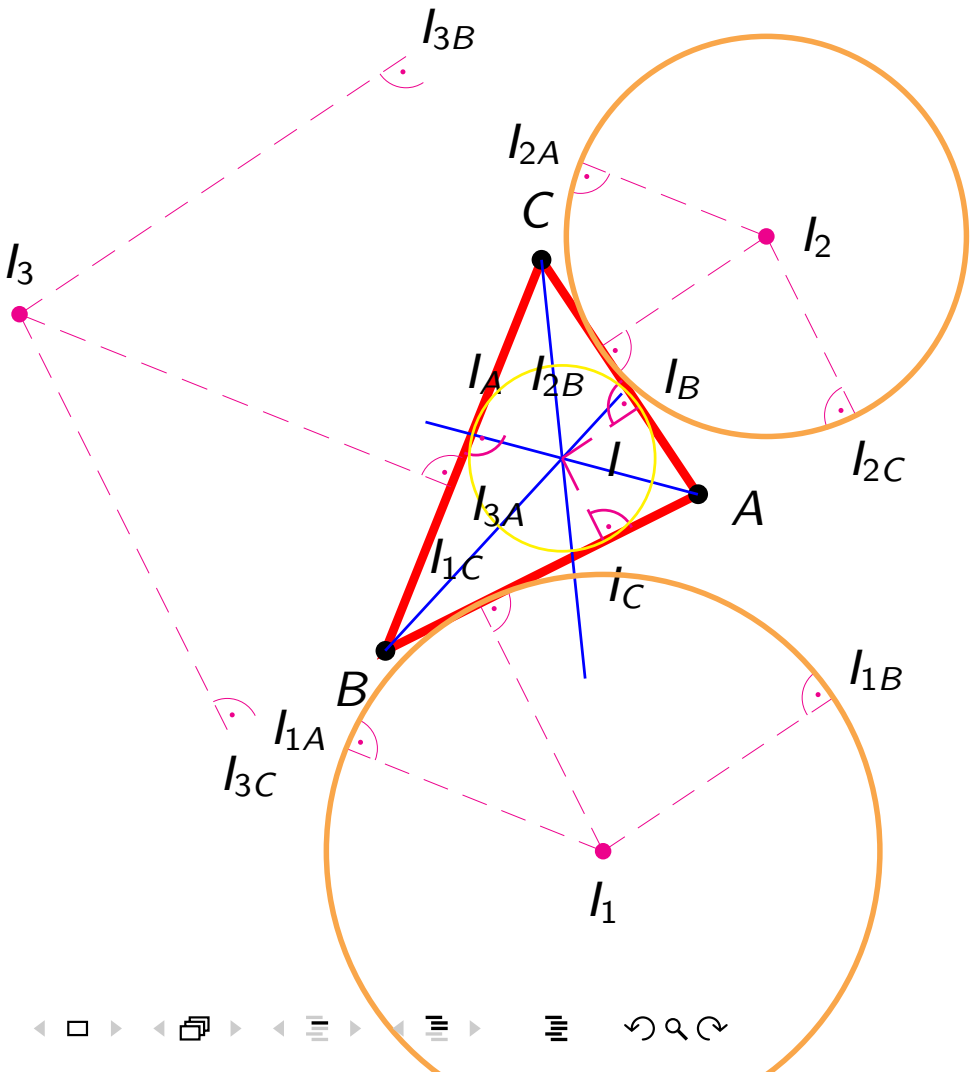

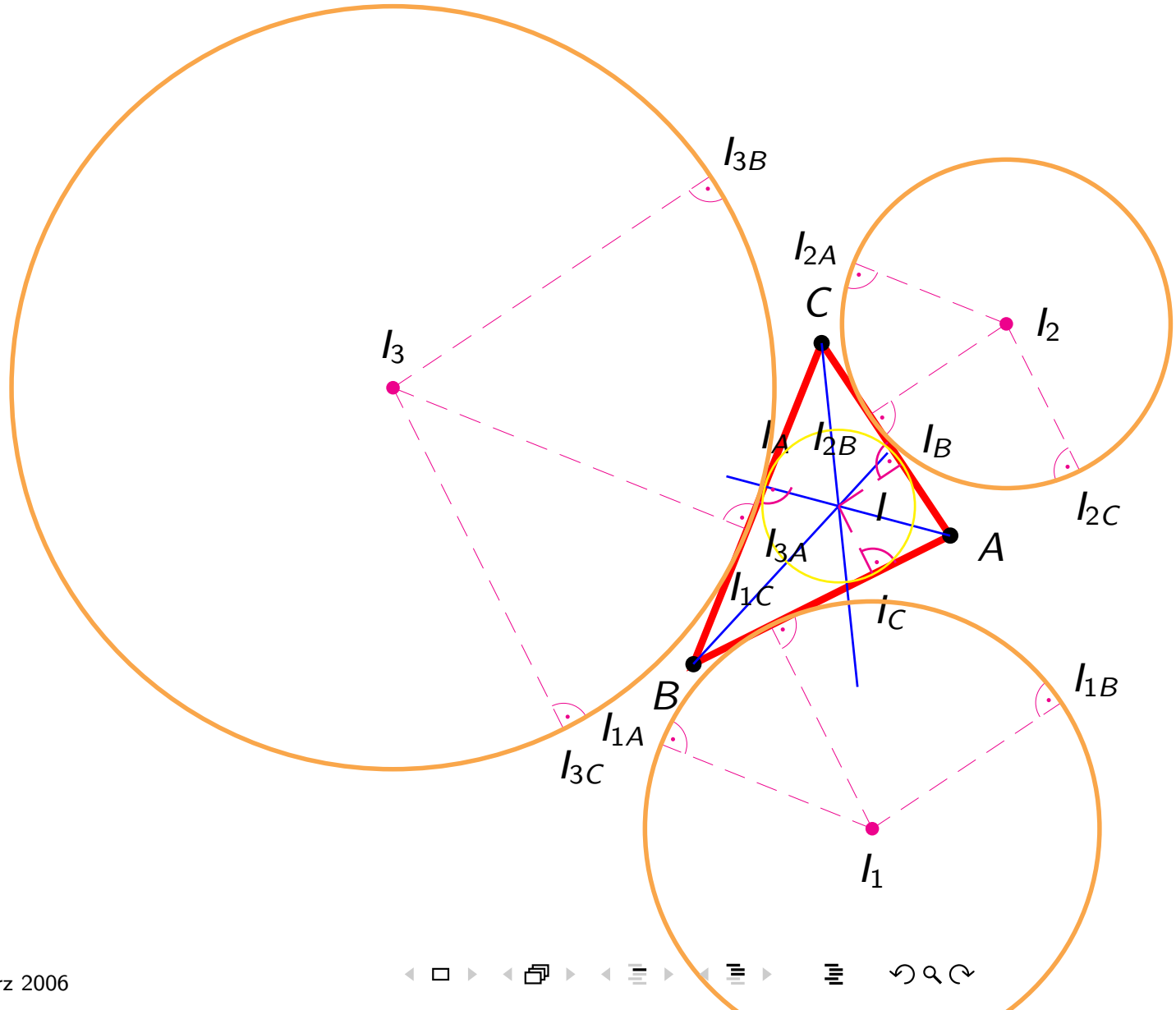

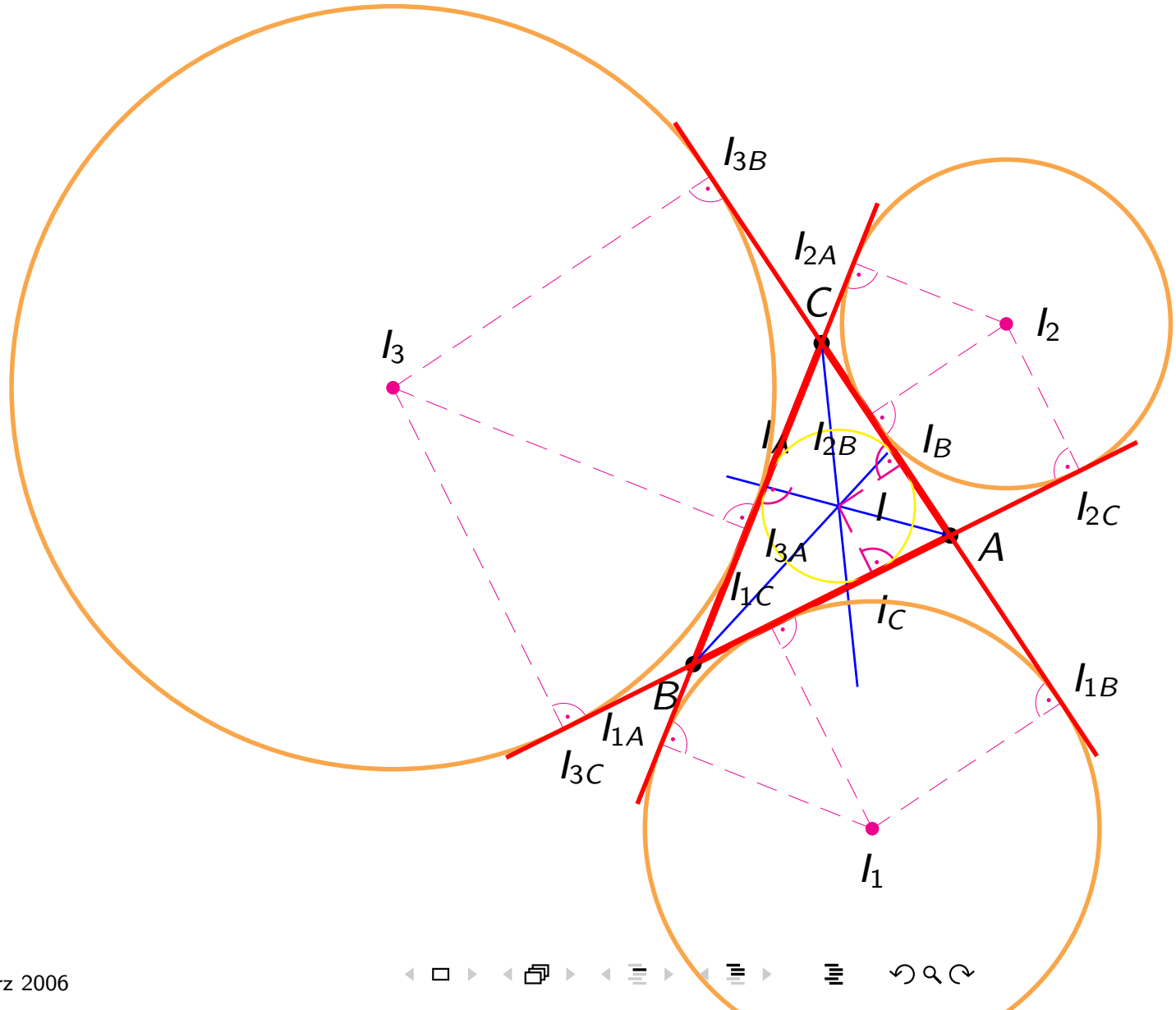

Quellcode I


```
1  \psset{unit=0.5}
2  \begin{pspicture}(-11,-7)(7.5,9)%\psgrid
3  \psset{PointSymbol=none,RightAngleType=german}
4  \pstTriangle[linewidth=2\pslinewidth, linecolor=red](4,1){A
     }(0,-1){B}(2,4){C}\psdots(A)(B)(C)}
5  \psset{linecolor=blue,linewidth=0.5pt}
6  \pstBissectBAC[PointSymbol=none, PointName=none]{C}{A}{B}{AB}
7  \pstBissectBAC[PointSymbol=none, PointName=none]{A}{B}{C}{BB}
8  \pstBissectBAC[PointSymbol=none, PointName=none]{B}{C}{A}{CB}
9  \pstInterLL{A}{AB}{B}{BB}{I}
10 \psset{linecolor=magenta, linestyle=dashed}
11 \pstProjection{A}{B}{I}[I_C]}
12 \pstLineAB{I}{I_C}\pstRightAngle[linestyle=solid]{A}{I_C}{I}
13 \pstProjection{A}{C}{I}[I_B]}
14 \pstLineAB{I}{I_B}\pstRightAngle[linestyle=solid]{C}{I_B}{I}
15 \pstProjection[PosAngle=80]{C}{B}{I}[I_A]}
16 \pstLineAB{I}{IA}\pstRightAngle[linestyle=solid]{B}{I_A}{I}
17 \pstCircleOA[linecolor=yellow, linestyle=solid]{I}{I_A}
18 %
19 \psset{linecolor=magenta, linestyle=none, linewidth=0.1pt}
20 \pstOutBissectBAC[PointSymbol=none, PointName=none]{C}{A}{B}{
     AOB}
```

Quellcode II


```
21 \pstOutBissectBAC[PointSymbol=none, PointName=none]{A}{B}{C}{
     BOB}
22 \pstOutBissectBAC[PointSymbol=none, PointName=none]{B}{C}{A}{
     COB}
23 \pstInterLL[PosAngle=-90]{A}{AOB}{B}{BOB}{I_1}\psdot(I_1)
24 \pstInterLL{A}{AOB}{C}{COB}{I_2}\psdot(I_2)
25 \pstInterLL[PosAngle=90]{C}{COB}{B}{BOB}{I_3}\psdot(I_3)
26 \psset{linecolor=magenta, linestyle=dashed}
27 \pstProjection[PointName=I_{1C}]{A}{B}{I_1}[I1C]}
28 \pstLineAB{I_1}{I1C}
29 \pstRightAngle[linestyle=solid]{I_1}{I1C}{A}
30 \pstProjection[PointName=I_{1B}]{A}{C}{I_1}[I1B]}
31 \pstLineAB{I_1}{I1B}
32 \pstRightAngle[linestyle=solid]{A}{I1B}{I_1}
33 \pstProjection[PointName=I_{1A}]{C}{B}{I_1}[I1A]}
34 \pstLineAB{I_1}{I1A}
35 \pstRightAngle[linestyle=solid]{I_1}{I1A}{C}
36 \pstProjection[PointName=I_{2B}]{A}{C}{I_2}[I2B]}
37 \pstLineAB{I_2}{I2B}
38 \pstRightAngle[linestyle=solid]{A}{I2B}{I_2}
39 \pstProjection[PointName=I_{2C}]{A}{B}{I_2}[I2C]}
40 \pstLineAB{I_2}{I2C}
41 \pstRightAngle[linestyle=solid]{I_2}{I2C}{A}
```

Quellcode III


```
\pstProjection[PointName=I_{2A}]{B}{C}{I_2}[I2A]}
\pstLineAB{I_2}{I2A}
\pstRightAngle[linestyle=solid]{C}{I2A}{I_2}
\pstProjection[PointName=I_{3A}]{C}{B}{I_3}[I3A]}
\pstLineAB{I_3}{I3A}
\pstRightAngle[linestyle=solid]{C}{I3A}{I_3}
\pstProjection[PointName=I_{3C}]{A}{B}{I_3}[I3C]}
\pstLineAB{I_3}{I3C}
\pstRightAngle[linestyle=solid]{A}{I3C}{I_3}
\pstProjection[PointName=I_{3B}]{C}{A}{I_3}[I3B]}
\pstLineAB{I_3}{I3B}
\pstRightAngle[linestyle=solid]{I_3}{I3B}{A}
\psset{linecolor=yellow!50!red!80,linestyle=solid, linewidth=1
  pt}
\pstCircleOA{I_1}{I1C}
\pstCircleOA{I_2}{I2B}
\pstCircleOA{I_3}{I3A}
\psset{linecolor=red, linestyle=solid, nodesepA=-1, nodesepB
  =-1}
\pstLineAB{I1B}{I3B}
\pstLineAB{I1A}{I2A}
\pstLineAB{I2C}{I3C}
\end{pspicture}
```

Quellcode IV

Quellcode


```
1  \def\radius{4 }\def\PhiI{20 }\def\PhiII{50 }
2  \def\RadIs{\radius \PhiI sin mul}
3  \def\RadIc{\radius \PhiI cos mul}
4  \def\RadIIs{\radius \PhiII sin mul}
5  \def\RadIIc{\radius \PhiII cos mul}
6  \def\psxyzlabel#1{\bgroup\tiny\textsf{#1}\egroup}
7  \pause
8  \begin{pspicture}(-5,-6.5)(3,4.5)
9    \psset{Alpha=45,Beta=30,linestyle=dashed,unit=0.8cm}
10   \pstThreeDCoor[linestyle=solid,xMin=-5,xMax=5,yMin=-4,yMax
       =5,zMax=5,IIIDticks]
11   \pstThreeDEllipse[linecolor=red](0,0,0)(0,\radius,0)(0,0,\
       radius)
12   \pstThreeDEllipse(\RadIs,0,0)(0,\RadIc,0)(0,0,\RadIc)
13   \pstThreeDEllipse(\RadIIs,0,0)(0,\RadIIc,0)(0,0,\RadIIc)
14 %
15   \pstThreeDEllipse[linestyle=dotted,SphericalCoor](0,0,0)(\
       radius,90,\PhiI)(\radius,0,0)
16   \pstThreeDEllipse[SphericalCoor,
17 beginAngle=-90,endAngle=90](0,0,0)(\radius,90,\PhiI)(\radius
     ,0,0)
18   \pstThreeDEllipse[linestyle=dotted,SphericalCoor](0,0,0)(\
       radius,90,\PhiII)(\radius,0,0)
```

Quellcode


```
1  \begin{pspicture}(-3,-3)(3,3)%\psgrid
2    \pstThreeDCoor[%
3      xMin=-3,xMax=3.5,yMin=-3,yMax=3.5,zMin=-3,zMax=3,%
4      Alpha=45,Beta=10]
5    \pstThreeDPut(1.2,-1.2,2.6){\color{blue}$\vec\mu$}
6    \psset{linecolor=blue}
7    \pstThreeDLine[linewidth=2pt](0,0,-3)(0,0,-1.5)
8    \rput{30}(0,0){%
9      \pstThreeDLine(0,0,-3.5)(0,0,0)
10     \pstThreeDSphere[Beta=10,linecolor={[cmyk]{0.2,0.6,1,0}},
         linewidth=0pt,%
11 SegmentColor={[cmyk]{0.2,0.6,1,0}}](0,0,0){1.5}
12     \pstThreeDLine[arrows=->](0,0,1.7)(0,0,3.5)}
13   \pstThreeDLine[linewidth=2pt,arrows=->](0,0,1.7)(0,0,3)
14   \pstThreeDPut(-.2,.2,3){\color{blue}$\vec B_0$}%
15 \end{pspicture}
```

▸ Zurück