1 扇形

1.1 \tkzDrawSector命令：绘制扇形

注意参数需要根据选项变化。

\tkzDrawSector[⟨ 命令选项⟩](⟨O,…⟩)(⟨…⟩)

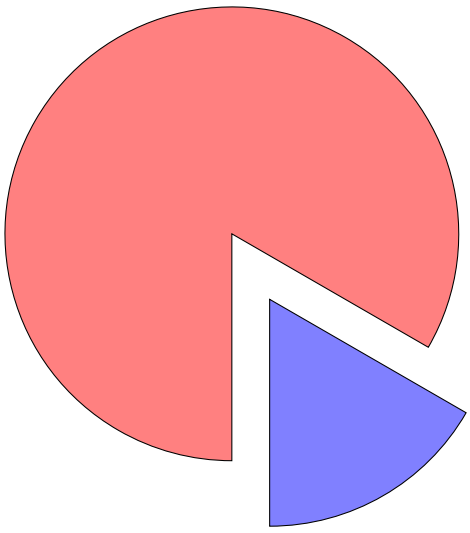
选项	默认值	含义
towards	towards	O 是圆心并且圆弧从 A 到 (OB)
rotate	towards	圆弧从 A 开始并且用角度确定长度
R	towards	给定半径和两个角度
R with nodes	towards	给定半径和两个点

可以使用所有有效的 TikZ 样式。

选项	参数	样例
towards	(⟨pt,pt⟩)(⟨pt⟩)	\tkzDrawSector(O,A)(B)
rotate	(⟨pt,pt⟩)(⟨an⟩)	\tkzDrawSector[rotate,color=red](O,A)(90)
R	(⟨pt,r⟩)(⟨an,an⟩)	\tkzDrawSector[R,color=blue](O,2 cm)(30,90)
R with nodes	(⟨pt,r⟩)(⟨pt,pt⟩)	\tkzDrawSector[R with nodes](O,2 cm)(A,B)

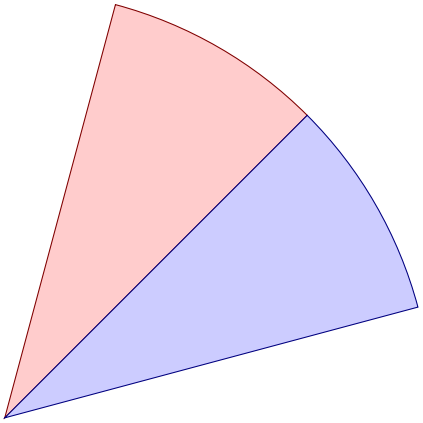
1.1.1 towards选项示例

towards是默认选项，同时也可以使用**fill**选项。



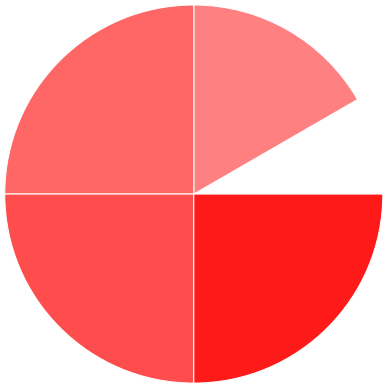
```
\begin{tikzpicture}[scale=1]
  \tkzDefPoint(0,0){O}
  \tkzDefPoint(-30:3){A}
  \tkzDefPointBy[rotation = center O angle -60](A)
  \tkzDrawSector[fill=red!50](O,A)(tkzPointResult)
  \begin{scope}[shift={(-60:1cm)}]
    \tkzDefPoint(0,0){O}
    \tkzDefPoint(-30:3){A}
    \tkzDefPointBy[rotation = center O angle -60](A)
    \tkzDrawSector[fill=blue!50](O,tkzPointResult)(A)
  \end{scope}
\end{tikzpicture}
```

1.1.2 rotate选项示例



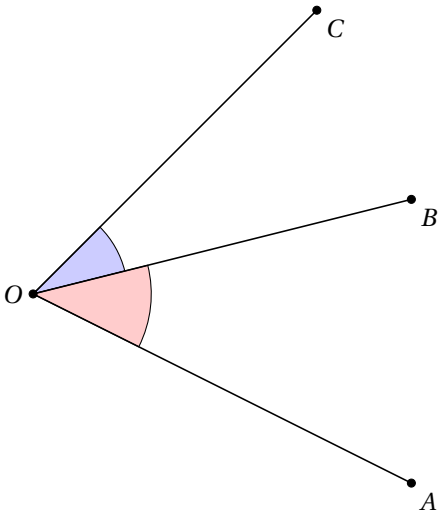
```
\begin{tikzpicture}[scale=2]
  \tkzDefPoint(0,0){O}
  \tkzDefPoint(2,2){A}
  \tkzDrawSector[rotate,draw=red!50!black,%
                 fill=red!20](O,A)(30)
  \tkzDrawSector[rotate,draw=blue!50!black,%
                 fill=blue!20](O,A)(-30)
\end{tikzpicture}
```

1.1.3 R选项示例



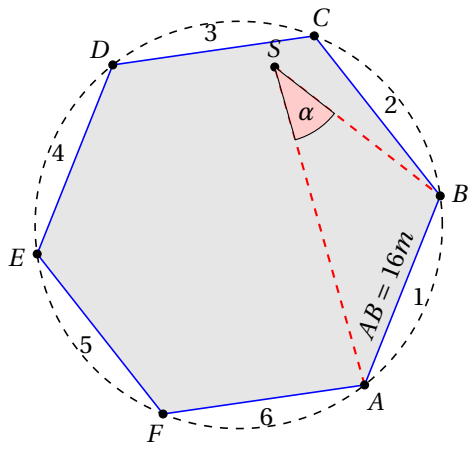
```
\begin{tikzpicture}[scale=1.25]
  \tkzDefPoint(0,0){O}
  \tkzDefPoint(2,-1){A}
  \tkzDrawSector[R,draw=white,%
                 fill=red!50](O,2cm)(30,90)
  \tkzDrawSector[R,draw=white,%
                 fill=red!60](O,2cm)(90,180)
  \tkzDrawSector[R,draw=white,%
                 fill=red!70](O,2cm)(180,270)
  \tkzDrawSector[R,draw=white,%
                 fill=red!90](O,2cm)(270,360)
\end{tikzpicture}
```

1.1.4 R选项示例




```
\begin{tikzpicture}[scale=1.25]
  \tkzDefPoint(0,0){O}
  \tkzDefPoint(4,-2){A}
  \tkzDefPoint(4,1){B}
  \tkzDefPoint(3,3){C}
  \tkzDrawSector[R with nodes,%
                 fill=blue!20](O,1 cm)(B,C)
  \tkzDrawSector[R with nodes,%
                 fill=red!20](O,1.25 cm)(A,B)
  \tkzDrawSegments(O,A O,B O,C)
  \tkzDrawPoints(O,A,B,C)
  \tkzLabelPoints(A,B,C)
  \tkzLabelPoints[left](O)
\end{tikzpicture}
```

1.1.5 R with nodes选项示例




```
\begin{tikzpicture}[scale=.5]
  \tkzDefPoint(-1,-2){A}
  \tkzDefPoint(1,3){B}
  \tkzDefRegPolygon[side,sides=6](A,B)
  \tkzGetPoint{O}
  \tkzDrawPolygon[fill=black!10,
                  draw=blue](P1,P...,P6)
  \tkzLabelRegPolygon[sep=1.05](O){A,...,F}
  \tkzDrawCircle[dashed](O,A)
  \tkzLabelSegment[above,sloped,
                   midway](A,B){\(A B = 16m\)}
  \foreach \i  [count=\xi from 1]  in {2,...,6,1}
    {%
      \tkzDefMidPoint(P\xi,P\i)
      \path (O) to [pos=1.1] node {\xi} (tkzPointResult) ;
    }
  \tkzDefRandPointOn[segment = P3--P5]
  \tkzGetPoint{S}
  \tkzDrawSegments[thick,dashed,red](A,S S,B)
  \tkzDrawPoints(P1,P...,P6,S)
  \tkzLabelPoint[left,above](S){$S$}
  \tkzDrawSector[R with nodes,fill=red!20](S,2 cm)(A,B)
  \tkzLabelAngle[pos=1.5](A,S,B){$\alpha$}
\end{tikzpicture}
```

1.2 \tkzFillSector命令：填充扇形

☞ 注意参数需要根据选项变化。

\tkzFillSector[⟨ 命令选项⟩](⟨O,…⟩)(⟨…⟩)

选项	默认值	含义
towards	towards	O 是圆心并且圆弧从 A 到 (OB)
rotate	towards	圆弧从 A 开始并且通过角度确定长度
R	towards	给定半径和两个角度
R with nodes	towards	给定半径和两个点

当然，可以使用所有有效的 TikZ 样式。

选项	参数	样例
towards	(⟨pt,pt⟩)(⟨pt⟩)	\tkzFillSector(O,A)(B)
rotate	(⟨pt,pt⟩)(⟨an⟩)	\tkzFillSector[rotate,color=red](O,A)(90)
R	(⟨pt,r⟩)(⟨an,an⟩)	\tkzFillSector[R,color=blue](O,2 cm)(30,90)
R with nodes	(⟨pt,r⟩)(⟨pt,pt⟩)	\tkzFillSector[R with nodes](O,2 cm)(A,B)

1.2.1 towards选项示例

towards是默认选项，该命令不绘制轮廓，仅对区域进行着色。

```
\begin{tikzpicture}[scale=.6]
  \tkzDefPoint(0,0){O}
  \tkzDefPoint(-30:3){A}
  \tkzDefPointBy[rotation = center O angle -60](A)
  \tkzFillSector[fill=red!50](O,A)(tkzPointResult)
  \begin{scope}[shift={(-60:1cm)}]
    \tkzDefPoint(0,0){O}
    \tkzDefPoint(-30:3){A}
    \tkzDefPointBy[rotation = center O angle -60](A)
    \tkzFillSector[color=blue!50](O,tkzPointResult)(A)
  \end{scope}
\end{tikzpicture}
```

1.2.2 rotate选项示例


```
\begin{tikzpicture}[scale=1.5]
  \tkzDefPoint(0,0){O} \tkzDefPoint(2,2){A}
  \tkzFillSector[rotate,color=red!20](O,A)(30)
  \tkzFillSector[rotate,color=blue!20](O,A)(-30)
\end{tikzpicture}
```

1.3 \tkzClipSector命令：扇形裁剪

☞ 注意参数需要根据选项变化。

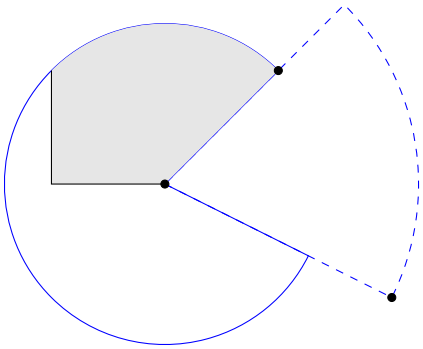
\tkzClipSector[⟨ 命令选项⟩](⟨O,…⟩)(⟨…⟩)

选项	默认值	含义
towards	towards	O 是圆心，并且圆弧从 A 开始到 (OB)
rotate	towards	扇形从 A 开始并且由角度确定其幅度
R	towards	给定半径和两个角度

当然，可以使用所有有效的 TikZ 样式。

选项	参数	样例
towards	(⟨pt,pt⟩)(⟨pt⟩)	\tkzClipSector(O,A)(B)
rotate	(⟨pt,pt⟩)(⟨angle⟩)	\tkzClipSector[rotate](O,A)(90)
R	(⟨pt,r⟩)(⟨angle 1,angle 2⟩)	\tkzClipSector[R](O,2 cm)(30,90)

1.3.1 示例



```
\begin{tikzpicture}[scale=1.5]
  \tkzDefPoint(0,0){O}
  \tkzDefPoint(2,-1){A}
  \tkzDefPoint(1,1){B}
  \tkzDrawSector[color=blue,dashed](O,A)(B)
  \tkzDrawSector[color=blue](O,B)(A)
  \tkzClipBB
  \begin{scope}
    \tkzClipSector(O,B)(A)
    \draw[fill=gray!20] (-1,0) rectangle (3,3);
  \end{scope}
  \tkzDrawPoints(A,B,O)
\end{tikzpicture}
```