

1 尺规标记

1.1 \tkzCompass命令：绘制尺规标记

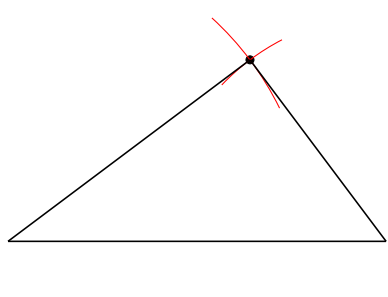
\tkzCompass[< 命令选项>](A,B)

该命令绘制尺规标记，即一小段圆弧。使用该命令时，须指定圆心。可以使用 TikZ 的 style、color、line thickness 等样式设置标记外观。

可以使用length或delta选项指定标记长度。

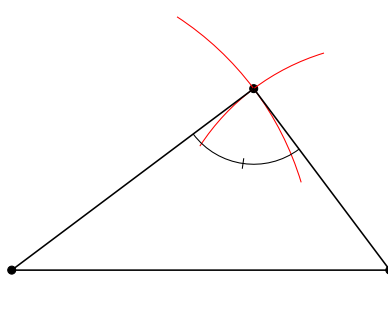
| 选项 | 默认值 | 含义 |
|--------|---------|-----------|
| delta | 0 (deg) | 延伸长度 (度) |
| length | 1 (cm) | 圆弧长度 (cm) |

1.1.1 length选项示例



```
\begin{tikzpicture}
\tkzDefPoint(1,1){A}
\tkzDefPoint(6,1){B}
\tkzInterCC[R](A,4cm)(B,3cm)
\tkzGetPoints{C}{D}
\tkzDrawPoint(C)
\tkzCompass[color=red,length=1.5](A,C)
\tkzCompass[color=red](B,C)
\tkzDrawSegments(A,B A,C B,C)
\end{tikzpicture}
```

1.1.2 delta选项示例



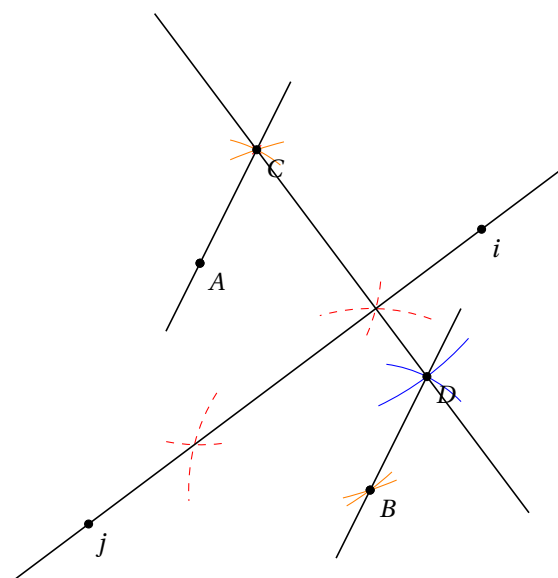
```
\begin{tikzpicture}
\tkzDefPoint(0,0){A}
\tkzDefPoint(5,0){B}
\tkzInterCC[R](A,4cm)(B,3cm)
\tkzGetPoints{C}{D}
\tkzDrawPoints(A,B,C)
\tkzCompass[color=red,delta=20](A,C)
\tkzCompass[color=red,delta=20](B,C)
\tkzDrawPolygon(A,B,C)
\tkzMarkAngle(A,C,B)
\end{tikzpicture}
```

1.2 \tkzCompass命令：绘制多个尺规标记

\tkzCompass[< 命令选项>](pt1,pt2, pt3,pt4,...)

注意：参数是点对列表。

| 选项 | 默认值 | 含义 |
|--------|-----|------|
| delta | 0 | 延伸角度 |
| length | 1 | 圆弧长度 |



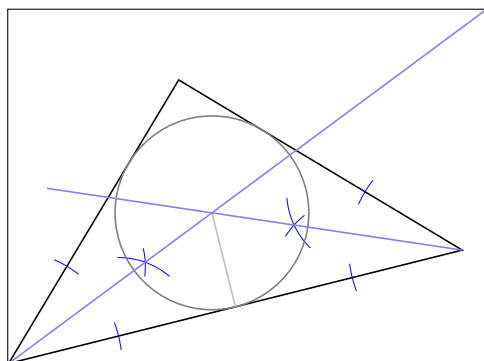
```
\begin{tikzpicture}[scale=.75]
\tkzDefPoint(2,2){A}
\tkzDefPoint(5,-2){B}
\tkzDefPoint(3,4){C}
\tkzDrawPoints(A,B)
\tkzDrawPoint[color=red,shape=cross out](C)
\tkzCompass[color=orange](A,B A,C B,C C,B)
\tkzShowLine[mediator,color=red,
dashed,length = 2](A,B)
\tkzShowLine[parallel = through C,
color=blue,length=2](A,B)
\tkzDefLine[mediator](A,B)
\tkzGetPoints{i}{j}
\tkzDefLine[parallel=through C](A,B)
\tkzGetPoint{D}
\tkzDrawLines[add=.6 and .6](C,D A,C B,D)
\tkzDrawLines(i,j) \tkzDrawPoints(A,B,C,i,j,D)
\tkzLabelPoints(A,B,C,i,j,D)
\end{tikzpicture}
```

1.3 \tkzSetUpCompass命令：设置尺规标记样式

`\tkzSetUpCompass[< 命令选项>]`

| 选项 | 默认值 | 含义 |
|------------|----------|-----------------------------|
| line width | 0.4pt | 线宽 |
| color | black!50 | 颜色 |
| style | solid | 线型: solid、dashed、dotted、... |

1.3.1 示例



```
\begin{tikzpicture}[showbi/.style={bisector,
size=2,gap=3}, scale=.75]
\tkzSetUpCompass[color=blue,line width=.3 pt]
\tkzDefPoints{0/1/A, 8/3/B, 3/6/C}
\tkzDrawPolygon(A,B,C)
\tkzDefLine[bisector](B,A,C) \tkzGetPoint{a}
\tkzDefLine[bisector](C,B,A) \tkzGetPoint{b}
\tkzShowLine[showbi](B,A,C)
\tkzShowLine[showbi](C,B,A)
\tkzInterLL(A,a)(B,b) \tkzGetPoint{I}
\tkzDefPointBy[projection= onto A--B](I)
\tkzGetPoint{H}
\tkzDrawCircle[radius,color=gray](I,H)
\tkzDrawSegments[color=gray!50](I,H)
\tkzDrawLines[add=0 and -.2,color=blue!50](A,a B,b)
\tkzShowBB
\end{tikzpicture}
```