

Drawing Pie Chart by using `pgf-pie`

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Abstract

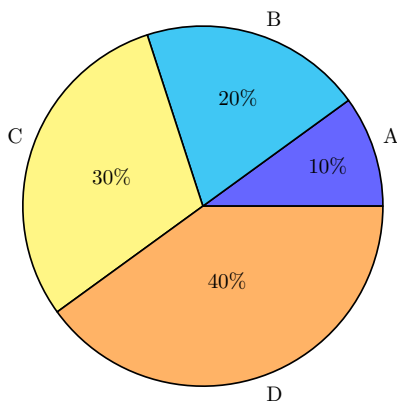
`pgf-pie` is a LaTeX package for drawing pie chart. As stated by its name, it is based on a very popular graphic package PGF/TikZ. This document presents the usage of `pgf-pie` and collects some pie charts as examples. `pgf-pie` can be downloaded from <http://code.google.com/p/pgf-pie/>.

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1 The Essentials

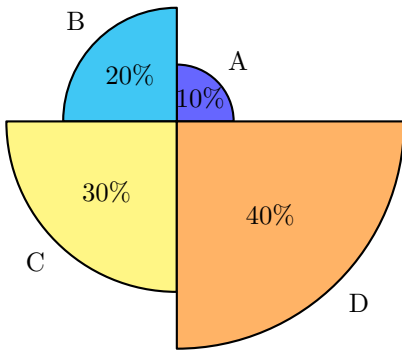
1.1 First Pie



```
\begin{tikzpicture}
  \pie{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
```

1.2 Polar area diagram

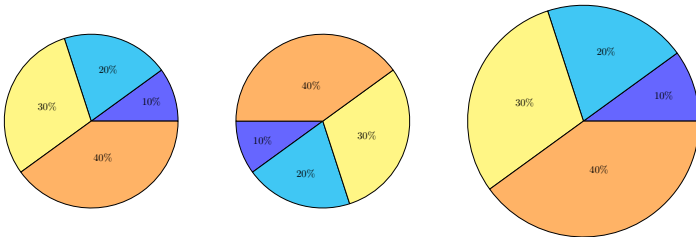
The polar area diagram is similar to a usual pie chart, except sectors are equal angles and differ rather in how far each sector extends from the center of the circle.



```
\begin{tikzpicture}
  \pie[polar]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
```

1.3 Position, Rotation, Size

The center of chart can be set by `pos`, default is $\{0,0\}$. The chart can be rotated by setting `rotate` (in degrees). The size of chart can be set by `radius`, default is 3.

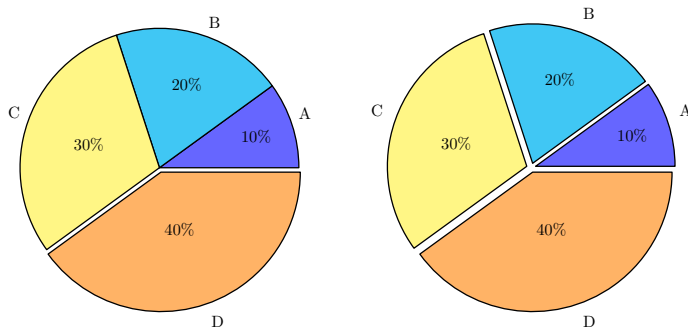


```
\begin{tikzpicture}
  \pie{10/, 20/, 30/, 40/}

  \pie[pos={8,0}, rotate=180]{10/, 20/, 30/, 40/}

  \pie[pos={17,0}, radius=4]{10/, 20/, 30/, 40/}
\end{tikzpicture}
```

1.4 Explode

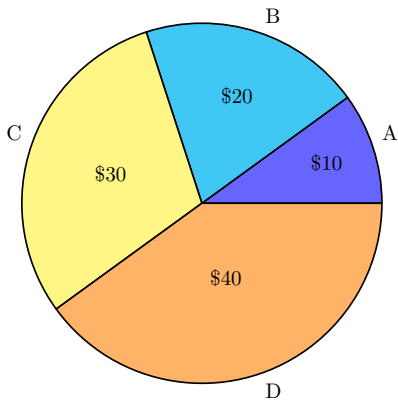


```
\begin{tikzpicture}
  % explode list
  \pie[explode={0, 0, 0, 0.1}] {10/A, 20/B, 30/C, 40/D}

  % explode all
  \pie[pos={8,0}, explode=0.1] {10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
```

1.5 Text Label

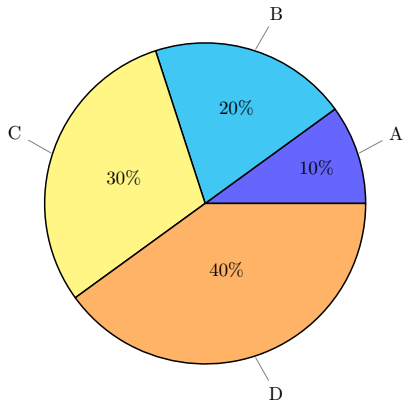
1.5.1 Text inside pie



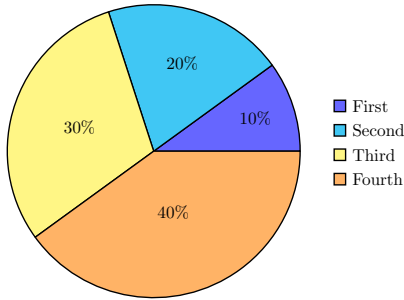
```
\begin{tikzpicture}
  \pie[before number={\$}, after number=,]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
```

1.5.2 Text outside pie

The value of `text` can be `label`(default), `pin` or `legend`.



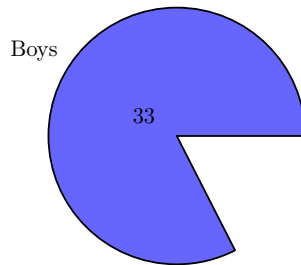
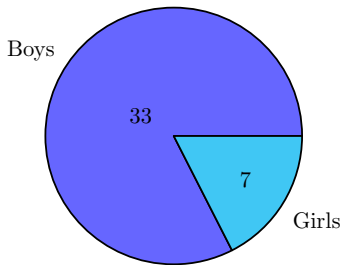
```
\begin{tikzpicture}
\pie[text=pin]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
```



```
\begin{tikzpicture}
\pie[text=legend]{10/First, 20/Second, 30/
Third, 40/Fourth}
\end{tikzpicture}
```

1.6 Sum

The value of `sum` indicates the sum of all data in the chart, it is 100 by default. It can be calculated automatically when `auto` is set.

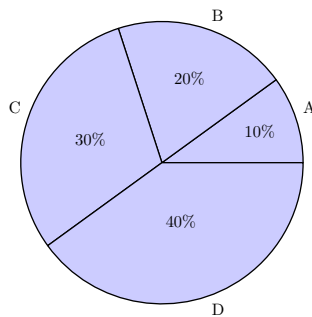
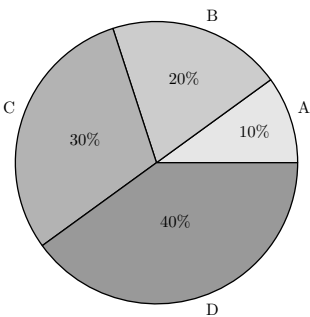


```
\begin{tikzpicture}
\pie[sum=auto, after number=, radius=2]{33/
Boys, 7/Girls}

\pie[pos={6,0}, sum=40, after number=, radius
=2]{33/Boys}
\end{tikzpicture}
```

1.7 Color

The color can be specified by `color`, the default color wheel is shown in figure 1.



```
\begin{tikzpicture}
\pie[color={black!10, black!20, black!30,
black!40}]
{10/A, 20/B, 30/C, 40/D}

\pie[pos={8,0}, color=blue!20] {10/A, 20/B,
30/C, 40/D}
\end{tikzpicture}
```

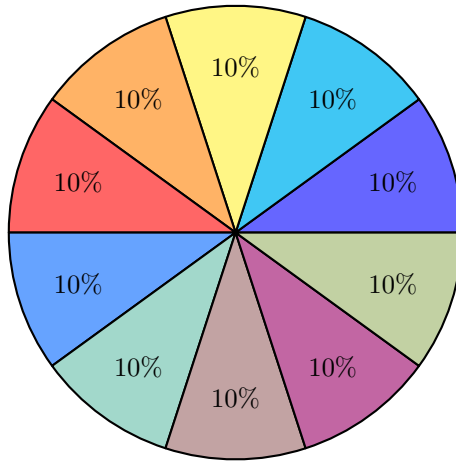
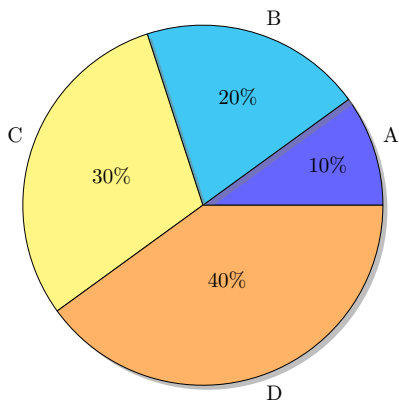


Figure 1: Default color wheel

1.8 Style

1.8.1 shadow



```
% \usetikzlibrary{shadows}
\begin{tikzpicture}
  \pie[style=drop shadow]{10/A, 20/B, 30/C, 40/D}
\end{tikzpicture}
```

2 Examples