

PGF (Portable Graphics Format) is an internal engine, whereas TikZ (TikZ ist kein Zeichenprogramm) serves as a frontend.

Available colours

| | | |
|--|--|--|
| ■ red | ■ gray | ■ pink |
| ■ green | ■ darkgray | ■ purple |
| ■ blue | ■ lightgray | ■ teal |
| ■ cyan | ■ brown | ■ violet |
| ■ magenta | ■ lime | ■ white |
| ■ yellow | ■ olive | |
| ■ black | ■ orange | |

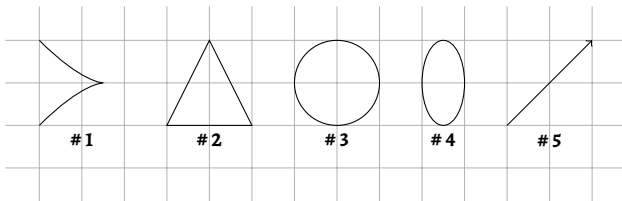
Usage

```
% ...
\usepackage{tikz}

\begin{document}
\begin{tikzpicture}
% larger picture code here
\end{tikzpicture}
% ...
```

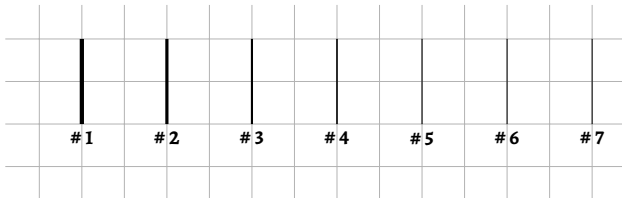
Basic shapes

```
\draw (10pt, 20pt) .. controls (30pt, 40pt) and (30pt, 20pt)
.. (10pt, 40pt);
\draw (40pt, 20pt) -- (60pt, 20pt) -- (50pt, 40pt) -- cycle;
\draw (80pt, 30pt) circle (10pt);
\draw (105pt, 30pt) ellipse (5pt and 10pt);
\draw [->] (120pt, 20pt) -- (140pt, 40pt);
```



Thickness

```
\draw [ultra thick] (20pt, 20pt) -- (20pt, 40pt);
\draw [very thick] (40pt, 20pt) -- (40pt, 40pt);
\draw [thick] (60pt, 20pt) -- (60pt, 40pt);
\draw [semithick] (80pt, 20pt) -- (80pt, 40pt);
\draw [thin] (100pt, 20pt) -- (100pt, 40pt);
\draw [very thin] (120pt, 20pt) -- (120pt, 40pt);
\draw [ultra thin] (140pt, 20pt) -- (140pt, 40pt);
```



Dots and dashes

All lines drawn below are ultra thick.

```
\draw [ultra thick, densely dotted];
\draw [ultra thick, dotted];
\draw [ultra thick, loosely dotted];
\draw [ultra thick, densely dashed];
\draw [ultra thick, dashed];
\draw [ultra thick, loosely dashed];
\draw [ultra thick, dashdotted];
```

