Latex in Examples



Thanks to me

Examples in this book is updated every week.

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```
\label{eq1} $$ \operatorname{equation} \left( eq1 \right) \left( eq1
```

CORRECT paste code from examples

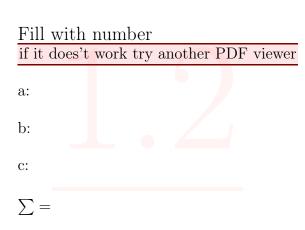
Math Tips

1.1 Auto-resizing equation

$$\dot{\rho} = \frac{x^3}{45a^9 - 23b}$$

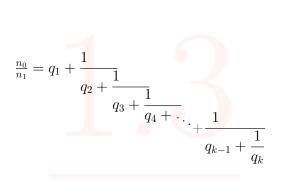
```
\begin{equation*} \label{eq1} $$\operatorname{constant}_{1}^{\theta} \leq .4 \to 0.5... $$ \det{\rho}=\left(x^3\right)_{45a^9-23b}^{\theta} \end{equation*}
```

1.2 Form for simplest calculation



```
documentclass{article}
usepackage{hyperref}
begin{document}
\begin{Form}
\noindent%
Fill with number\\
\text{TextField[name=a]{a:} }
\text{TextField[name=b]{b:} }
TextField[name=c]{c:} \\
\noindent%
\sum = \frac{\text{Num} = \text{Num}}{\text{Iname}}
 event.value = (
    \langle sss\{a\} +
   \backslash sss\{b\} +
   \backslash sss\{c\});
\}, readonly, value=0|{}
\end{Form}
\end{document}
```

1.3 Equation in the form of steps



```
documentclass{article}
 usepackage{amsmath}
 def\mwd{35pt}
\begin{document}
        \label{eq:frac} $$ \prod_0 {n_1} = q_1 + \frac{n_0}{makebox[\mwd][l]} $$
                              \hookrightarrow $1$}}
        {\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mbox[\mb
        {\makebox[\mywd][l]{\q} 3 + \dfrac{\makebox[\mywd][l]}{}}
                               \hookrightarrow $1$}}
        {\mbox[\mbox[\mbox]][l]{$q_4 + }
              \rightarrow \text{kern30pt\$}
        \{q \{k-1\} + dfrac\{1\}\}
        \{q_k\}$$
\end{document}
```

1.4 One number for multiline equation

$$x_{ij} = d_{ijk}E_k,$$

$$x_{ij} = \varsigma_{ijk}H_k,$$

$$x_{ij} = s_{ijkl}X_{kl},$$

$$x_{ij} = \xi_{ij}\delta p,$$

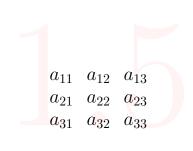
$$x_{ij} = \alpha_{ij}\delta T$$

$$(1.1)$$

```
\documentclass{article}
\usepackage{amsmath}
\begin{document}
\begin{equation}
\begin{aligned}

x_{ij} &= d_{ijk}E_k, \\
x_{ij} &= \varsigma_{ijk}H_k, \\
x_{ij} &= s_{ijkl}X_{kl}, \\
x_{ij} &= \xi_{ij} \delta p, \\
x_{ij} &= \alpha_{ij} \delta T
\end{aligned}
\end{equation}
\end{document}
```

1.5 Matrix in standalone document class



1.6 Multiple lines, one centered label

$$A = \frac{\pi r^2}{2}$$

$$= \frac{1}{2}\pi r^2$$
(1.2)

$$\begin{equation} \label{eq1} \\ begin{split} \\ A \& = \frac{ \pi^2}{2} \\ \& = \frac{1}{2} \pi^2 \\ end{split} \\ end{equation} \\ \end{equation}$$

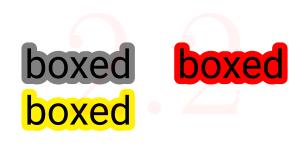
Text, Symbols

2.1 New section symbol



```
\usepackage[object=vectorian]{pgfornament}
\usepackage{lipsum,tikz}
\newcommand{\sectionlinetwo}[2]{\%}
\nointerlineskip \vspace{.5\baselineskip}\hspace{\fill}
{\color{#1}\resizebox{0.5\linewidth}{2ex}
{\{\begin{tikzpicture}}
\node (C) at (0,0) {\};\node (D) at (9,0) {\};
\path (C) to [ornament=#2] (D);
\end{tikzpicture}}\}\%
\hspace{\fill}\par\nointerlineskip
\vspace{.5\baselineskip}}
\%usage---> \sectionlinetwo{orange}{88}
```

2.2 Wireframe rendering



```
\documentclass{article}
\usepackage{xcolor}
\usepackage{roboto}
\usepackage[outline]{contour}
\begin{document}
\roboto\huge\contourlength{.15em}
\contour{gray}{boxed}
\end{document}
```

2.3 Justifyed text

- 1. First item in a list
- 2. Second item in a list
- 3. Third item in a list
- 4. Fourth item in a list
- 5. Fifth item in a list
- 6. Sixth item in a list
- 7. Seventh item in a list
- 8. Eighth item in a list
- 9. Ninth item in a list
- 10. Tenth item in a list

```
\documentclass{article}
\usepackage{blindtext}
\newcommand*\justify{%
\fontdimen2\font=0.4em% interword space
\fontdimen3\font=0.2em% interword stretch
\fontdimen4\font=0.1em% interword shrink
\fontdimen7\font=0.1em% extra space
\hyphenchar\font='\-% allowing hyphenation
}
\begin{document}
\texttt{\justify\blindenumerate[10]}
\end{document}
```

2.4 Text under an underline

This is short text (some text)

```
\documentclass[12pt]{article}
\usepackage{amsmath,soul}
\usepackage{soulpos}
\ulposdef{\ulnumaux}{%

\underset{\saveulnum}{\rule[-.7ex]{\ulwidth}{.4pt}}$}
\newcommand{\ulnum}[2]{%
\def\saveulnum{#1}%
\ulnumaux{#2}}
\begin{document}
\ulnum{\text{(some text)}}{This is short text}
\end{document}
```

Code, listings, minted ...

3.1 Code listing using minted in beamer



```
documentclass{beamer}
usepackage{tcolorbox}
\tcbuselibrary{minted,skins,breakable}
newtcblisting{pythoncode}[2][]{
 listing engine=minted, breakable, colback=bg,
 colframe=black!70, listing only,
 minted style=colorful, minted language=python,
 minted\ options = \{numbersep = 3mm, texcl = true, \#1\},
 left=5mm,enhanced,
 overlay={\begin{tcbclipinterior}\fill[black!25] (frame.south west)
rectangle ([xshift=5mm]frame.north west);\end{tcbclipinterior}},
\#2,}
\begin{document}
\begin{frame}[fragile]
    \frametitle{Premature Optimization}
    \begin{pythoncode} [linenos=true,] {title=Python Code}
        \hookrightarrow Example}
   import glob
    \end{pythoncode}
\end{frame}
end{document}
```

3.2 "Zebra" style listing

```
/**

* Prints Hello World.

**/
#include <stdio.h>

int main(void) {
    printf("Hello World!");
    return 0;
}
```

```
\documentclass{article}
  \usepackage[T1]{fontenc}
  \usepackage{beramono}
  \usepackage{listings}
  \usepackage{xcolor}
  \newcommand\realnumberstyle[1]{}
  \makeatletter
  \newcommand{\zebra}[3]{%
                      {\realnumberstyle{#3}}%
                      \begingroup
                    \label{lem:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma:lemma
                                       \color{#1}%
                                       \color{#2}%
                                       \verb|\color@block{\linewidth}{\ht\strutbox}{\dp\strutbox}|
                    \endgroup}
  \makeatother
  \begin{document}
 \begin{lstlisting}[language=C,basicstyle=\ttfamily,
numberstyle=\zebra{green!35}{yellow!35},numbers=left]
  * Prints Hello World.
 #include <stdio.h>
int main(void) {
   printf("Hello World!");
               return 0;
 \end{document}
```

3.3 Listing with russian language



```
documentclass{article}
   usepackage[T2A]{fontenc}
   usepackage[utf8]{inputenc}
  \usepackage[russian]{babel}
   usepackage{listings}
  \usepackage{xcolor}
 \begin{document}
 \lstset{ keepspaces=true,
backgroundcolor=\color{blue},
showstringspaces=false,
language=C,
extendedchars=\true,
framexrightmargin=0pt,
framexleftmargin=0pt,
framextopmargin=15pt,
framexbottommargin=15pt,
frame=tb, framerule=0pt,
basicstyle=\color{yellow}\ttfamily\small}
begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{begin{bee}b}}}}}}}}}}
print("English comment"); // English comment
print("Russian comment"); // %here can be russian words
end{lstlisting}\% <<<<<< add "/"
\end{document}
```

3.4 Listing with minted



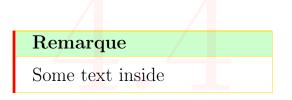
```
\documentclass{article}
\usepackage[many]{tcolorbox}
\tcbuselibrary{minted}
\newtcblisting{mylisting}{
    colframe=cyan,
    colback=cyan!10,
    listing only,
    listing engine=minted,
    minted language=cpp,
    minted options={fontsize=\small,linenos,numbersep=3mm},
}
\begin{document}
    begin{mylisting}
    some code
    \end{mylisting}
\end{document}
```

Tables, boxes and so on

4.1 Nice tcolorbox



4.2 Color box with yellow border



```
documentclass[border=2mm]{standalone}
usepackage[most]{tcolorbox}
usepackage{lipsum}
\newtcolorbox{mycolorbox}[1]{
   enhanced, breakable,
   title=#1, colback=white,
   colbacktitle=green!20!white,
   coltitle=black,
   fonttitle=\bfseries,
   boxrule=.5pt, arc=0pt,
   outer arc=0pt,
   colframe=yellow!80!orange,
   borderline west={2pt}{0pt}{red} }
\begin{document}
begin{mycolorbox}{Remarque}
\lceil \lim_{n \to \infty} [1]
\end{mycolorbox}
\end{document}
```

4.3 A drop capital in a toolorbox

Some text. Lorem ipsum dolor sit amet, consectetuer adipiscing elit.

```
\documentclass{article}
\usepackage{lettrine}
\usepackage{tcolorbox}
\usepackage{lipsum}

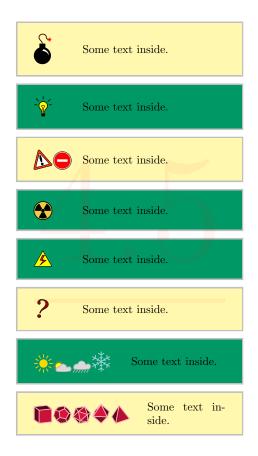
\begin{document}
\begin{tcolorbox}
\lettrine{S}{ome} text. \lipsum[1]
\end{tcolorbox}
\end{document}
```

4.4 Table with the desired length.



a command was also created to make a new cell view in the table

4.5 bclogo – Creating colourful boxes with logos



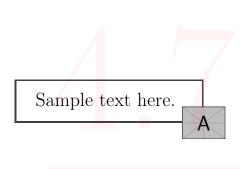
```
documentclass{article}
 usepackage{geometry}
\geometry{
paperwidth=8cm,
paperheight=14cm,
margin=0.5cm
 usepackage{xcolor}
usepackage[most]{tcolorbox}
usepackage[tikz]{bclogo}
 newtcolorbox\{framedd\}[1][]{
 colframe=lightgray,
  colback=yellow!40!white,
 enhanced jigsaw,
 sharp corners,
 lower separated=false,
  lefthand width=1cm,
  sidebyside gap=0.5cm,
  sidebyside,#1}
 begin{document}
 begin{framedd}
  \bcbombe \tcblower Some text inside.
\end{framedd}
\begin{framedd}[colback=blue!40!green]
  \bclampe \tcblower Some text inside.
\end{framedd}
\begin{framedd}
  \bcattention \bcinterdit \tcblower
 Some text inside.
 end{framedd}
 \begin{array}{l} \label{lem:colback=blue!40!green} \ \ \ \ \ \ \ \ \ \ \end{array}
   \bcnucleaire \tcblower
  Some text inside.
\end{framedd}
\begin{framedd}[colback=blue!40!green]
 \bcdanger \tcblower
 Some text inside.
 end\{framedd\}
 begin{framedd}
  \bcquestion \tcblower
  Some text inside.
\end{framedd}
\begin{framedd}[colback=blue!40!green, lefthand width=2.5cm]
  \bcsoleil \bceclaircie \bcpluie \bcneige \tcblower
 Some text inside.
end\{framedd\}
begin{framedd}[lefthand width=3cm]
  \bccube \bcdodecaedre \bcicosaedre \bcoctaedre \bctetraedre \tcblower
 Some text inside.
\end{framedd}
end{document}
```

4.6 Warning banner



```
usepackage[utf8]{inputenc}
   usepackage[T1]{fontenc}
   usepackage[most]{tcolorbox}
 \define color {orang} {RGB} {255,155,0}
 \newtcolorbox[auto counter,number within=section]{caja}[1][]{
enhanced jigsaw,colback=white,colframe=orang,coltitle=orang,
fonttitle=\bfseries\sffamily,
sharp corners,
detach title,
leftrule=10mm,
% What you need %%%%%%%%%%%%%%%%%
underlay\ unbroken\ and\ first = \{\node[below, text=black, anchor=east]\ 
at ([xshift=-5.5pt]interior.base west) {\{Huge \text{textbf}\{!\}\};\},
breakable,pad at break=1mm,
\#1,
code = {\c defempty{\c tcbtitletext}} {\c defempty{\c tcbtit
                \hookrightarrow tcbtitle\par\medskip\}\}\},
 \begin{document}
 \begin{caja}[title=warning]
The vertical alignment settings
 \end{caja}
 \end{document}
```

4.7 Photo positioning

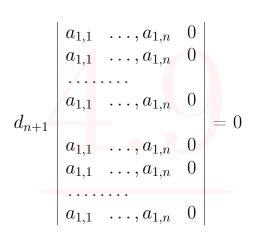


4.8 Absolutely centered cells (vertically and horisontally)

all	in	cells
are 🗸	centered	vertically
and	horisontally	Σ

\documentclass{article}			
\usepackage{float}			
\usepackage{array, makecell}			
$\setcellgapes{5pt}$			
\begin{document}			
$\left\langle \operatorname{begin} \{ \operatorname{table} \} [H] \right\rangle$			
\center			
makegapedcells			
$\left\{ c c c c c \right\}$			
\hline			
$1\&1\&1\&1\setminus\setminus$ hline			
$1\&1\&1\&1\setminus\setminus$ hline			
$1\&1\&1\&1\setminus\setminus$ hline			
$\ensuremath{\mbox{end}\{ abular\}}$			
$\ensuremath{\mbox{end}\{ able\}}$			
$\ensuremath{\operatorname{locument}}$			
L.			

4.9 Martix made of table



```
documentclass[a4paper,14pt]{extreport}
 begin{document}
\langle begin\{table\} | 
\begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array}
& $a_{1,1}$ & $\\dots, a_{1,n}$ & 0 & \\
& a_{1,1} & \cdot dots, a_{1,n} & 0 & \
& \mbox{multicolumn}{3}{||}{\dotfil|} & \
& $a \{1,1\}$ & $\\dots, a \{1,n\}$ & 0 & \\
d_{n+1} & & & & = \overline{p} pm 2ad_n$ = 0 \
& $a \{1,1\}$ & $\\dots, a \{1,n\}$ & 0 & \\
& a_{1,1} & \cdot dots, a_{1,n} & 0 & \
& $a_{1,1}$ & $\\dots, a_{1,n}$ & 0 & \\
\end{tabular}
\end{table}
\end{document}
```

4.10 Centering cells with NiceTabular



```
documentclass{article}
usepackage[table]{xcolor}
\usepackage{nicematrix}
\NiceMatrixOptions{cell-space-top-limit=5pt,cell-space-bottom-
   \hookrightarrow limit=5pt
begin{document}
\begin{table}[htbp]
centering
\operatorname{begin}\{\operatorname{NiceTabular}\}\{|c|c|c|\}
hline
\cellcolor{red}1\&\cellcolor{green}1\&\ 1\ \ \ \
\cellcolor{green!35}1 \& \cellcolor{blue!45}1 \& 1 \ \ \
end{NiceTabular}
\end{table}
end{document}
```

4.11 Centered cells in longtable

Enum	Example	Description
1	test	Quisque facilisis auctor sapien. Pellentesque gravida hendrerit lectus. Mauris rutrum sodales sapien. Fusce hendrerit sem vel lorem. Integer pellentesque massa vel augue. Integer elit tortor, feugiat quis, sagitis et, ornare non, lacus. Vestibulum posuere pellentesque eros. Quisque venenatis ipsum dictum nulla. Aliquam quis quam non metus eleifend interdum. Nam eget sapien ac mauris malesuada adipiscing. Etiam eleifend neque sed quam. Nulla facilisi. Proin a ligula. Sed id dui eu nibh egestas tincidumt. Suspendisse arcu.
2a	test	Quisque facilisis auctor sapien. Pellentesque gravida hendrerit lectus. Mauris rutrum sodales sapien. Fusce hendrerit sem vel lorem. Integer pellentesque massa vel augue. Integer elit tortor, feugiat quis, sagittis et, ornare non, lacus. Vestibulum posuere pellentesque eros. Quisque venenatis ipsum dictum nulla. Alfquam quis quam non metus eleifend interdum. Nam eget sapien ac mauris malesuada adipiscing. Etiam eleifend neque sed quam. Nulla facilisi. Proin a ligula. Sed id dui eu nibh egestas tincidumt. Suspendisse arcu.
		Quisque facilisis auctor sapien. Pellentesque gravida hendrerit lectus. Mauris rutrum sodales sapien. Fusce hendrerit sem vel lorem. Integer pellentesque massa
2b	test	vel augue. Integer elit tortor, feugiat quis, sagittis et, ornare non, lacus. Vestibulum posuere pellentesque eros. Quisque venenatis ipsum dictum nulla. Aliquam quis quam non metus eleifend interdum. Nam eget sapien ac mauris malesuada adipiscing. Etiam eleifend neque sed quam. Nulla facilisi. Proin a ligula. Sed id dui eu nibh egestas tincidunt. Suspendisse arcu.

\documentclass{article}			
\usepackage[left=1.5cm,right=1.5cm,			
top=1.5cm,bottom=2cm,bindingoffset=0cm]{geometry}			
\usepackage{float}			
\usepackage{array, makecell}			
\usepackage[utf8]{inputenc}			
\usepackage{lipsum}			
\usepackage{booktabs}			
\usepackage{multirow}			
\usepackage{pdflscape}			
\usepackage{longtable, array}			
\begin{document}			
\begin{landscape}			
$\label{longtable} $$\left[0{\rm s}_{15}\right] *{1}{m_{.15}\pi} *{1}{m_{.40}}$			
\hookrightarrow paperwidth}} @{}}			
\endfirsthead			
\endhead			
\toprule			
lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:			
\midrule			
$1 \& \text{test } \& \lceil 50 \rceil \setminus$			
\midrule			
2a & test & \lipsum[50]\\			
2b & test & \lipsum[50]\\			
bottomrule			
\end{longtable}			
\end{landscape}			
$\ensuremath{\operatorname{Nend}} \{ \operatorname{document} \}$			
P			

4.12 If table is not wide enough

	Item1	Item2	Item3
Group	1 0.8	0.1	0.1
Group?	20.1	0.8	0.1
Group:	30.1	-0.1	0.8
Group ²	40.34	0.33	0.33

```
documentclass{article}
usepackage[left=1.5cm,right=1.5cm,
top=1.5cm,bottom=2cm,bindingoffset=0cm]{geometry}
\usepackage{graphicx}
\usepackage{booktabs}
\usepackage{tabularx}
\begin{document}
\begin{table}[!ht]
\caption{Vertical and lateral stresses of mortar.}
vspace{0.5cm}
\left( \frac{tabularx}{tx} \right) 
      & Item1 & Item2 & Item3 \\ \midrule
Group1 & 0.8 & 0.1 & 0.1 \\
Group2 & 0.1 & 0.8 & 0.1 \\
Group3 & 0.1 & 0.1 & 0.8 \\
Group4 & 0.34 & 0.33 & 0.33 \\ \bottomrule
\end{tabularx}
\left| \left| c \right| \right|
\end{table}
\end{document}
```

4.13 Text next to a table

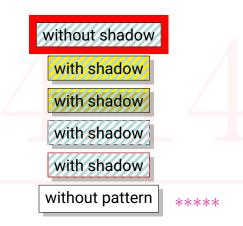


```
documentclass[a4paper,14pt]{extreport}
 usepackage[left=1.5cm,right=1.5cm,top=1.5cm,bottom=2cm,

→ bindingoffset=0cm]{geometry}

\usepackage{lipsum}
\begin{document}
\left[ \frac{minipage}{m} \right] = 0.58 \right]
text text text
end{minipage}
hspace{0.2cm}
\operatorname{begin}\{\min_{m=0.40 \text{ textwidth}}\}
\left( \frac{c|c|c}{c|c|} \right)
\hline
1 & 22 & 333 & \\ \hline
  & & & \setminus \setminus hline
  & & & \\ \hline
 & & & \setminus \setminus hline
\end{tabular}
\end{minipage}
\end{document}
```

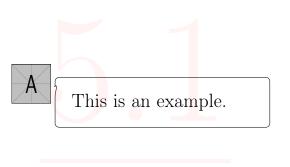
4.14 Text next to a table



```
documentclass[tikz,border=5mm]{standalone}
   usetikzlibrary{chains,patterns,shadows,fit,backgrounds}
 makeatletter
 \tikzset{% customization of pattern
                                 % based on <m.wibrow@gm...> - 2013-03-24 07:20:
                              hatch distance/.store in=\hatchdistance,
                             hatch distance=5pt,
                              hatch thickness/.store in=\hatchthickness,
                              hatch thickness=5pt
\pgfdeclarepatternformonly[\hatchdistance,\hatchthickness]{north east hatch
                   \hookrightarrow \gamma \quad name
               {\left\{\begin{array}{c} pgfqpoint{-1pt}{-1pt}}\% \text{ below left} \right\}}
               {\left\{\begin{array}{c} \left( \right) \\ \left( \right
               {\bf \{\pdfpoint\{\hatchdistance-1pt\}\{\hatchdistance-1pt\}\}\%}
                              \pgfsetcolor{\tikz@pattern@color}
                              \pgfsetlinewidth{\hatchthickness}
                              \protect\operatorname{pgfqpoint}\{0pt\}\{0pt\}\}
                               \pgfusepath{stroke}
makeatother
 \begin{document}
   \begin{tikzpicture}[
             start chain=going below,
              node distance=2mm,
              Node/.style = \{minimum \ width = \#1, \}
                                                                       shape=rectangle,
                                                                       draw, fill=white,
                                                                       on chain},
              Pattern/.style = {pattern=north east hatch,
                                                                           pattern color=teal!30,
                                                                           hatch distance=7pt,
                                                                           hatch thickness=2pt},
              font = \backslash small \backslash sffamily]
              \node[Node=24mm, Pattern,
                                            preaction={fill=white}] (a) {without shadow};
               \begin{scope}[on background layer]
                              \ensuremath{\ensuremath{\mathsf{end}}}
              \node[Node=24mm, drop shadow,
                                             preaction={fill=yellow}, Pattern| (b) {with shadow};
              \node[Node=24mm, preaction={fill=yellow},
                                             drop shadow, Pattern (b) {with shadow};
              \node[Node=24mm, postaction={Pattern},
                                             drop shadow] (b) {with shadow};
              \node[Node=24mm, postaction={draw=red, Pattern},
                                             drop shadow] (b) {with shadow};
              \node[Node=24mm, drop shadow] (c) {without pattern};
  \end{tikzpicture}
 \end{document}
```

Figures

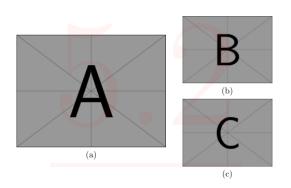
5.1 Comment to figure



```
\documentclass{article}
\usepackage{tikz}
\usetikzlibrary{shapes.callouts}

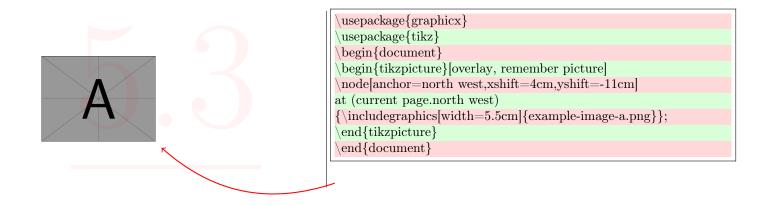
\begin{document}
\begin{tikzpicture}
\node [anchor=south west] at (0, 0) (cartoon) {\includegraphics[width]
\leftimes = .15\textwidth,height=.15\textwidth]{example-image-a}};
\node [anchor=north west,rectangle callout,draw=black, callout absolute pointer=(cartoon.east),
\textructric rounded corners=3pt,text width=0.7\textwidth, inner sep=2ex] at (.19\
\leftimes \textric textwidth,.125\textwidth) {This is an example.};
\end{tikzpicture}
\end{document}
```

5.2 Positioning $1 \mid 2$

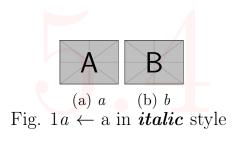


```
documentclass{article}
usepackage{graphicx}
usepackage{subfig}
begin{document}
\operatorname{begin}\{\operatorname{figure}\}[\operatorname{htp}]
centering
\operatorname{begin}\{\operatorname{tabular}\}\{@\{\}c@\{\}\}
\operatorname{subfloat}\left(\operatorname{includegraphics}\left(\operatorname{width=0.5}\left(\operatorname{linewidth}\right)\right)\right) = \operatorname{constant}\left(\operatorname{width=0.5}\left(\operatorname{width=0.5}\right)\right)
end{tabular}\qquad % some space
\left( \frac{c@{}}{c@{}}\right)
\operatorname{subfloat}\{\operatorname{includegraphics}[\operatorname{width}=0.3]\
\end{tabular}
\caption{Caption.}
\end{figure}
end{document}
```

5.3 Placing image anywhere You want



5.4 Italic sabfigure references



```
documentclass{article}
usepackage{graphicx}
usepackage{subcaption}
renewcommand\thesubfigure{{\itshape\alph{subfigure}}}} %<--- added
begin{document}
\begin{figure}
centering
begin{subfigure}{.25\textwidth}
centering
\includegraphics[width=.6\linewidth]{example-image-a}
\operatorname{caption}\{ \operatorname{textit}\{a\} \}
\left\{1a\right\}
end{subfigure}%
\left\{ \operatorname{subfigure} \right\} \left\{ .25 \right\}
\includegraphics[width=.715\linewidth]{example-image-b}
caption{ \textit{b} }
\langle label\{1b\} \rangle
\end{subfigure}
\caption{ }
\label{fig1}
end{figure}
Fig. \rf{1a} $\leftarrow$ a in \textbf{\text{textit}\{italic}}$ style
\end{document}
```

5.5 Wrapfigure







Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. Heardest geflurn? K giff — not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some noneaness like "Hundred geflurn?" K giff — not at all! A blind text like this gives you information in Really? Is there no information? Is there a difference between this text and some noneaness like "Hundred geflurn?" K giff — not at all! A blind text like this gives you information about the selected font, how the length of words should match the language. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get the place of the place o

documentclass[11pt]{scrartcl} usepackage[english]{babel} usepackage[utf8]{inputenc} usepackage{blindtext} usepackage[demo]{graphicx} usepackage{wrapfig} $\operatorname{setlength}\{\operatorname{parindent}\}\{0\mathrm{pt}\}$ begin{document} $\operatorname{begin}\{\operatorname{wrapfigure}\}[11]\{l\}\{0.4\setminus\operatorname{textwidth}\}$ \centering $\include graphics[scale=0.1]{Bild}$ \caption{FIG 1} $end{wrapfigure}$ blindtext $\left[11\right]_{r}{0.4\operatorname{textwidth}}$ \centering \includegraphics[scale=0.1]{Bild} \caption{FIG 2} end{wrapfigure} blindtext $\left[11\right] \{l\} \{0.4 \textwidth\}$ \centering \includegraphics[scale=0.1]{Bild} \caption{FIG 3} end{wrapfigure} blindtext blindtext \end{document}

Numbering, enumeration, itemizing

6.1 Numbering in few columns

```
\documentclass{article}
\usepackage{multicol}

\begin{document}
\begin{multicols}{2}\% change to have more columns}
\begin{enumerate}
\item c
\item g
\item d
\item f
\end{enumerate}
\end{multicols}
\end{document}
```

6.2 Enumeration environment with position number in the format (i, j)

- (1) First level-one item
 - (1,1) First level-two item
 - (1,2) Second level-two item
- (2) Second level-one item
 - (2,1) Still another level-two item

```
documentclass{article}
\renewcommand{\theenumi}{(\arabic{enumi})}
\renewcommand{\theenumii}{(\arabic{enumi},\arabic{enumii})}\renewcommand{\labelenumi}{\theenumii}}\renewcommand{\labelenumii}{\theenumii}
makeatletter \renewcommand{\p@enumii}{} \makeatother
begin{document}
begin{enumerate}
item First level-one item
  \begin{enumerate}
  \item First level-two item
  \item Second level-two item
  end{enumerate}
\item Second level-one item
  \begin{enumerate}
  \item Still another level-two item
  \end{enumerate}
end{enumerate}
end{document}
```

6.3 Colored enumeration

- **1)** item
- 2)
- 3) item
- 4)
- 5) special item
- 6)
- 7) item

```
documentclass{article}
    usepackage{tikz}
 \displaystyle \left( \operatorname{definecolor} \{\operatorname{amethyst} \} \{\operatorname{rgb} \} \{0.6, 0.4, 0.8\} \right)
  definecolor{applegreen}{rgb}{0.55, 0.71, 0.0}
 \definecolor{arylideyellow}{rgb}{0.91, 0.84, 0.42}
   definecolor{asparagus}{rgb}{0.53, 0.66, 0.42}
  definecolor{atomictangerine}{rgb}{1.0, 0.6, 0.4}
   definecolor{bananayellow}{rgb}{1.0, 0.88, 0.21}
 \definecolor\{brightgreen\}\{rgb\}\{0.4, 1.0, 0.0\}
   definecolor{cambridgeblue}{rgb}{0.64, 0.76, 0.68}
   definecolor{capri}{rgb}{0.0, 0.75, 1.0}
   definecolor{carnationpink}{rgb}{1.0, 0.65, 0.79}
\\ \noindent \n
                      \hookrightarrow cyan,arylideyellow,asparagus,atomictangerine,bananayellow,brightgreen
                    \hookrightarrow ,cambridgeblue,capri}
 \mbox{\newcommand{\SebastianoItem}[1]{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\normalfont{\n
{ \left| ifnum \right| Y = \#1 \mid relax }
 \xdef\SebastianoColor\{X\}
 \tikz[baseline=(SebastianoItem.base),remember
picture
 \node[fill=\SebastianoColor,inner sep=4pt,font=\sffamily,fill opacity=0.5] (
                         \rightarrow SebastianoItem){#1)};}}
 \mbox{\ensuremath{\mbox{newcommand}\{\SebastianoHighlight\}\{\tikz[overlay,remember\ picture]\{\%\}\}} }
 \fill[\SebastianoColor,fill opacity=0.5] ([yshift=4pt,xshift=-\pgflinewidth]
                       \rightarrow SebastianoItem.east) -- ++(4pt,-4pt)
-- ++(-4pt,-4pt) -- cycle;\}
 \begin{document}
  \renewcommand{\labelenumi}{\SebastianoItem{\arabic{enumi}}}
        \begin{enumerate}
                \item item
                \item special item \SebastianoHighlight
                \item item
        \end{enumerate}
   end{document}
```

6.4 Leveled arabic enumeration

- (1) First level-one item
 - (1,1) First level-two item
 - (1,2) Second level-two item
- (2) Second level-one item
 - (2,1) Still another level-two item

```
\documentclass{article}
\renewcommand{\theenumi}{(\arabic{enumi})} \renewcommand{\theenumii}{(\arabic{enumi})} \renewcommand{\labelenumi}{\theenumii} \renewcommand{\labelenumi}{\theenumii} \renewcommand{\labelenumii}{\theenumii}
makeatletter
makeatother
begin{document}
begin{enumerate}
\item First level-one item
  \begin{enumerate}
  \item First level-two item
  \item Second level-two item
  \end{enumerate}
item Second level-one item
  \begin{enumerate}
  \item Still another level-two item
  \end{enumerate}
\end{enumerate}
\end{document}
```

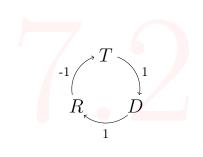
Plots, tikz, pie charts ...

7.1 Simple pie chart



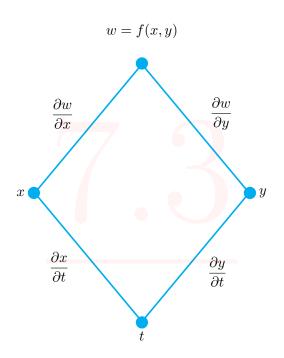
```
\documentclass[border=0.2cm]{standalone}
\usepackage{pgf-pie}
\begin{document}
\begin{tikzpicture}
\pie{22.97/Los Angeles Lakers,}
22.97/Boston Celtics,
8.11/Golden State Warriors,
8.11/Chicago Bulls,
6.76/San Antonio Spurs,
31.07/Other Teams}
\end{tikzpicture}
\end{document}
```

7.2 Circled arrows with text



```
\documentclass{article}
\usepackage{tikz}
\begin{document}
\begin{tikzpicture}[->,scale=.7]
\node (i) at (90:1cm) {$T$};
\node (j) at (-30:1cm) {$D$};
\node (k) at (210:1cm) {$R$};
\draw (70:1cm) arc (70:-10:1cm) node[midway, right] {{\footnotesize 1}};
\draw (-50:1cm) arc (-50:-130:1cm) node[midway, below] {{\footnotesize 1}};
\draw (190:1cm) arc (190:110:1cm) node[midway, left] {{\footnotesize -1}};
\end{tikzpicture}
\end{document}
```

7.3 Diamond with text



```
\documentclass[a4paper,14pt]{extreport}
\hookrightarrow cm|{geometry}
\usepackage{amsmath}
usepackage{tikz}
usetikzlibrary{shapes.geometric}
begin{document}
\begin{tikzpicture}
\node[diamond,font=\small,
line width=0.4mm,scale=0.7,
   draw = cyan, minimum width = 7.5cm, %text = red,
   minimum height = 9cm] (d) at (0,0) { };
      \node [above=0.5cm] (a) at (d.90) \{w = f(x,y)\};
     \node [above=0.5cm, right=0.1cm] (b) at (d.45) {$\dfrac{\hat w}{}}
          \hookrightarrow partial y}$};
      \hookrightarrow partial x}$};
      \node [left=0.1cm] (dd) at (d.180) \{x\};
      \node [right=0.1cm] (e) at (d.0) {$y$};
     \node [below=0.1cm] (f) at (d.270) {$t$};
     \node [below=0.9cm,right=-0.3cm] (g) at (d.-30) {\frac{p}{\sqrt{y}}}
          \hookrightarrow partial t}$};
     \node [below=0.5cm,left=0.1cm] (h) at (d.220) {\frac{partial x}{}}
          \hookrightarrow partial t\$;
     \node at (d.90) [cyan,circle,fill,inner sep=3pt]{};
     \node at (d.180) [cyan,circle,fill,inner sep=3pt]{};
     \node at (d.0) [cyan,circle,fill,inner sep=3pt]{};
      \node at (d.270) [cyan,circle,fill,inner sep=3pt]{};
\end{tikzpicture}
\end{document}
```

Highlighting

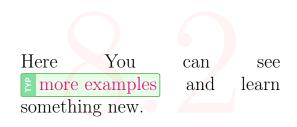
8.1 Words highlighting 1

```
The quick brown fox jumps over the lazy dog.

The quick brown fox jumps over the lazy dog.
```

```
\documentclass{article}
\usepackage{tcolorbox}
\newtcbox{\mybox}[1][red]{on line,
\arc=0pt,outer \arc=0pt,colback=#1!10!\white,colframe=#1!50!\black,
\boxsep=0pt,left=1pt,right=1pt,top=2pt,\bottom=2pt,
\boxrule=0pt,\bottomrule=1pt,toprule=1pt}
\newtcbox{\xmybox}[1][red]{\newtcbox}{\newtcbox}\simple \arc=7pt,colback=#1!10!\white,colframe=#1!50!\black,
\before \uper={\rule[-3pt]{0pt}{10pt}},\boxrule=1pt,
\boxsep=0pt,left=6pt,right=6pt,top=2pt,\bottom=2pt}
\begin{\document}
\text{The \mybox[green]{quick} \brown \mybox{fox}...\par
\text{The \xmybox[green]{quick} \brown \xmybox{fox}} ...\
\end{\document}
```

8.2 Unusual words highlighting



```
\usepackage[many]{tcolorbox}
\newtcbox{\mylib}{enhanced,nobeforeafter, tcbox raise base, boxrule=0.4pt,

\top=0mm, bottom=0mm,
\text{right=0mm, left=4mm, arc=1pt, boxsep=2pt, before upper={\vphantom{dlg}}

\top=\}}, colframe=green!50!black, coltext=green!25!black, colback=green

\top=\}}, colframe=green!50!black, coltext=green!25!black, colback=green

\top=\}!10!white, overlay={\begin{tcbclipinterior} \fill[green!75!blue!50!

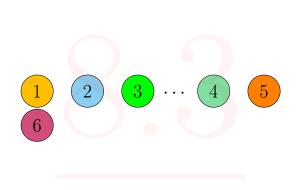
\top \text{white} \text{ (frame.south west) rectangle node[text=white,font=\sffamily\

\top \text{ bfseries}\tiny,rotate=90] \text{ [TYP} \text{ ([xshift=4mm]frame.north west);\\

\top \text{ end{tcbclipinterior}}}}
\text{ begin{document}

\text{ mylib{recieve}}
\end{document}
```

8.3 Colored circles



```
usepackage{tikz}
usepackage[framemethod=TikZ]{mdframed}
usepackage{xcolor}
\usetikzlibrary{calc}
makeatletter
\newlength{\mylength}
\xdef\CircleFactor{1.1}
\operatorname{setlength} \operatorname{h} \operatorname{dimexpr} f@\operatorname{size} \operatorname{pt}
\newsavebox{\newsavebox{\newsavebox{}}}
\hookrightarrow WL1/\#1\} \setminus \left\{ \operatorname{dimexpr}\operatorname{CircleFactor}\operatorname{dimexpr}\operatorname{ht}\right\}
     \rightarrow mybox+\dp\mybox\relax\relax\\tikzset\{mystyle/.style=\{circle, #1,
     → minimum height={\mylength}}} \tikz[baseline=(char.base)]
\node[mystyle] (char) {\#2};
makeatother
\label{lem:definecolor} $$\det{\{\rm rgb}\{1.0,\,0.75,\,0.0\}$$}
\definecolor{babyblue}{rgb}{0.54, 0.81, 0.94}
usage --> \circled[fill=amber,draw=black]{1}
```

8.4 Whole line colored



```
\documentclass{article}
\usepackage{xcolor}
\newcommand{\hly}[2]{\colorbox{#1!80}{\parbox{\textwidth}{#2}}}
\begin{document}
%\hly{YOURcolor}{some text}
\hly{green}{some text}
\hly{yellow}{some text}
\hly{red}{some text}
\end{document}
```



Download coffee4.sty and put in the same directory

9.2 Sticky notes



```
documentclass{article}
usepackage{xparse}
\usepackage{fancypar}
\usetikzlibrary{calc,shadows}
\begin{tikzpicture}
\node[
drop shadow={shadow xshift=3pt,},
inner xsep=0pt,
xslant=-0.1, yslant=0.1,
inner ysep=0pt,
text depth = \\ \\ the \\ \\ dimexpr \# 1 + 2.5ex \\ \\ relax
\end{tikzpicture}}
\begin{document}
\StickyNoteP[2.5cm]{\%}
NotebookPar[spiral=false]{
\LARGE first \ \end \} [6.5cm]
\end{document}
```



```
\documentclass{article}
\usepackage{tikz}
\usetikzlibrary{fadings, shadings}
newcommand\fadingtext[3][]{%
\stepcounter{fadcnt}
     \begin{tikzfadingfrompicture}[name=fading letter\thefadcnt]
        \node[text=transparent!0,inner xsep=0pt,outer xsep=0pt,#1] {#3};
     end{tikzfadingfrompicture}%
    \begin{tikzpicture}[baseline=(textnode.base)]
         \label{localization} $$  \  \  = 0pt, \#1](textnode)_{\pi}$ 
         \shade[path fading=fading letter\thefadcnt, #2, fit fading=false]
        (textnode.south west) rectangle (textnode.north east);\%
    \end{tikzpicture}%
\usetikzlibrary{calc}
\newbox\shbox
\tikzset{%
    path picture shading/.style={%
   path picture=\{\%
\pgfpointdiff{\pgfpointanchor{path picture bounding box}{south west}}%
    {\bf \{pf point anchor \{path\ picture\ bounding\ box\}\{north\ east\}\}\%}
\verb|\pgfgetlastxy| pathwidth | pathheight\%|
\pgfinterruptpicture%
       \global\setbox\shbox=\hbox{\pgfuseshading}{\#1}}\%
  \endpgfinterruptpicture%
\protect{\box\shbox}\%
\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\protect\pro
                         color(1.6667bp) = (blue);
                         color(3.3333bp)=(cyan);
                         color(5bp)=(green);
                         color(6.6667bp)=(yellow);
                         color(8.3333bp)=(orange);
                         color(10bp) = (red)
\begin{document}
  \fadingtext[scale=10, font=\bfseries]{upper left=red, upper right=green,
             \hookrightarrow lower left=blue,lower right=yellow}{\LaTeX}
\finterline{10, font=\bfseries]{path picture shading=rainbow}{}}
           \hookrightarrow \text{LaTeX}
\verb|\noindent| fading text[scale=0.7, font=|\bfseries] {path picture shading=}
            \rightarrow rainbow}{\parbox[b]{1.5\linewidth}{\strut\lipsum[1]}}
\end{document}
```

9.4 Single Watermark

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Parses manife, Namelskulm hetten side hat betten. Sed bledendum, pala faculties surpaye, ho with the facilities temple. See a versacultie as the second of the

Superations of fisis. It form forem, introdum on, thirddum of annet, lacket vitae, area. Aensin function pole on ante. Prassont entin elit, ruturum at, molectie izon, nonumny web, alti. Ut betten enya melocanala vit annet, fermentium on, sociales curusa, magna. Done on puruse, Qualque withenia, mas sed utilization sunter, pole loives gearest advice devenual dei ert and smalla. Done lettus. Canalitation est mune. Aliquem dolor odio, commodo pertuma, utilizides non, plainteria in, well. Integer area est, nonumny in, fermentum funcibus organization of the contraction of the contr

Sel commodo pomuere pode. Mauris ut est. Ut quis purus. Sed ac colo. Sel vehicula heuderit sem. Duis non odlo. Mechi ut de Sed accumant rione sept cello. In heuderit sem. Duis non odlo. Mechi ut de Sed accumant rione sept cello. In heuderitant, Munt felia odlo, sollicitudin sed, vehiquat a, ornare ac, crat. Motté quis dobre. Donce polleutosque, ent ac sagittis semper, ume dui loborti prura, quis congen perum rattu utilette tella. Podri et quan. Cleas spietar teath incidença di thom teoperar per comitalia nostra, pa

Pellencespie habitant modri trittigue senectus et privaç malesmad fames ac turpis egestas. Donce cello clir, dictum in, bunderes si marte, ogestas se, lo. Penesate frequie sapion abpete cilo), hategor vites justica. Abpann vestilandan fragilla lesera. Sed neque hetm. consectuer at, connectivur and, delibrid ag, kvim. Nulli flacihist. Pellentespa egel levim. Penin en metus. Sed porttor. In term. acceptator at, connectivur and, delibrid ag, kvim. Nulli flacihist. Pellentespa egel levim. Penin en metus. Sed porttor, in term. acceptator and acceptator acc

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confectivate dans semi-sem sem was:
Sed fought, Cum words managen penatibas et magnis dis parturient montes, nascetur ridiculus mus. Ut pellentesque augue sec
urna. Vestibulini diam eros, fringilla et, coissecteture cu, nonummy pi, sapira. Nullam as lectus. In sagitis ultricos manuries
maissanada gria ris armet, masses. Puede plandri. Aliquam entitudo A chemo uvi lectus. Nunc imperdide justo no
maissanada gria ris armet, masses. Puede plandri. Aliquam entitudo A chemo uvi lectus. Nunc imperdide justo no

Eximp cutamod Flace facilità lexim dell. Superalises potenti. In mi erat, cursus id, nommuny sed, ullancoper eget, sujen-Flacescar piertum, magas in delidiq esgales, pede pode pede petem locen, qui concentrate rotter supen facilità magas. Mantis qui magas wijens mila societisque impecilet. Alfaquam non quam. Alapum portitior quam a lexus. Piussent vid area ut torter cursus voltaga. Il n'avia gabe qui data gli belorium janevare. Flace sed entantium comalhi assoc. Sed doise arte, sederique se, clapion sec.

Aliquani jectus. Virsumer leo, Quieșue ornare tellus ullanceopre mulla. Manris portitiro planerta tortor. Sed fringilia justos sei mauris. Mauris tellus. Sed nou loc. Nillam elementum, magna in cursus sodales, aque est evolerișue sapient, venenatie congen mila arcu et pode. Ur suscipit cum yef sapien. Donce congue. Maccenas urna mi, suscipit în, placerat ut, westibulum ut, massa. Fusc ultrices mila et nici.

9.5 Full page of Watermarks

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Leven jeum tehr såg ært, consectebre skipering elle. Us grun får, vestlichung et, plæeres se, adipienin Nafarfels. Curabitur det grun grejden mants. Nam aren libero, nommengeder consectesfor bl. velputate a, magne. Dange vehicules angue en insper Pellentesope habitant moth tirstique serectus, et netures i melsundi fame ac turpie ogstat. Mantra is the Co. Ross verter mêters fromesses ser. Milles bet ektes vestleidum uran frainfigh altries. Bubbles en tellus art gille tende proposed pellerati. Integer spisjon es i forda hi, pretiam quist, vevera se, ume Proposed sen vel bo art gille tende proposed pellerati. Integer spisjon es i forda hi, pretiam quist, vevera se, ume Proposed sen vel bo art gille pellerati p
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```
documentclass[12pt]{book}
  usepackage{graphicx}
  usepackage[pages=some]{background}
  usepackage{lipsum}
  newcommand \backslash DupImage \{\%
                 \includegraphics[width=5cm]{logo.jpeg}\hfill% YOUR IMAGE
                 \label{logo.jpeg} $$\left[ \ensuremath{\operatorname{width}=5cm} \right] = \sum_{i=1}^{n} \left[ \ensuremath{\operatorname{logo.jpeg}} \right] $$\left[ \ensuremath{\operatorname{hfill}} \right] $$ YOUR IMAGE $$
                \label{logo.jpeg} $$ \left[ \frac{\log . jpeg}{hfill\% \ YOUR \ IMAGE \ includegraphics[width=5cm]{logo.jpeg}{hfill\% \ YOUR \ IMAGE \ 
                 \label{logo.jpeg} $$\left[ \ensuremath{\operatorname{width}=5cm} \right] = \sum_{i=1}^{n} \left[ \ensuremath{\operatorname{logo.jpeg}} \right] $$\left[ \ensuremath{\operatorname{hfill}} \right] $$ YOUR IMAGE $$
                  \includegraphics[width=5cm]{logo.jpeg}\hfill% YOUR IMAGE
                 newlength{drop}
 backgroundsetup{ scale=1, angle=45, opacity=.3,
     contents={%
                  \left\{ \min\left\{ \min\right\} \right\} 
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                 \square 
                  \square DupImage \setminus [2ex]
                \square \left( \operatorname{DupImage} \right) 
begin{document}
 drop=0.1 \times BgThispage \times [1-8]
\end{document}
```