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

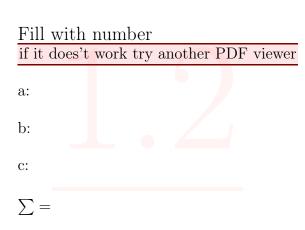
Math Tips

1.1 Auto-resizing equation

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

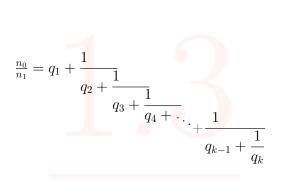
```
\begin{equation*} \label{eq1} $$\operatorname{constant}_{1}^{\theta} \leq .4 \to 0.5... $$ \det{\rho}=\left(x^3\right)_{45a^9-23b}^{\theta} \end{equation*}
```

1.2 Form for simplest calculation



```
documentclass{article}
usepackage{hyperref}
begin{document}
\begin{Form}
\noindent%
Fill with number\\
\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\mywd{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

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

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

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

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

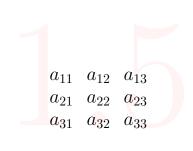
$$x_{ij} = \alpha_{ij}\delta T$$

$$(1.1)$$

```
\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)

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

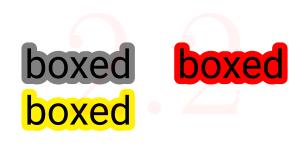
Text, Symbols

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

$\frac{\text{This is short text}}{\text{(seme text)}}$

```
\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{amsmath}
\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}%
                                        \label{lem:lap} $$ \Gamma_{\infty}(\st@numbersep)% $$
                                         \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



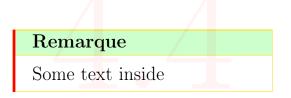
```
\documentclass{article}
\usepackage[many]{tcolorbox}
\tcbuselibrary{minted}
\newtcblisting{mylisting}{
    colframe=cyan,
    colback=cyan!10,
    listing only,
    listing engine=minted,
    minted language=cpp,
    minted options={fontsize=\small,linenos,numbersep=3mm},
}
\begin{document}
    begin{mylisting}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

4.4 Table with the desired length.



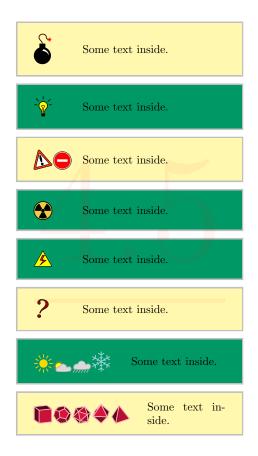
a command was also created to make a new cell view in the table

```
\usepackage{graphicx}
\usepackage{tabularx}
\newcolumntype{Y}{>\centering\arraybackslash}X}
\begin{document}
\begin{table}[h!]
\begin{center}
\caption{\textbf{Caption}}
\begin{tabularx}{14cm}{|Y|Y|c|Y|Y|}
\hline

Variant & res & Veriaty of waters $f_0$, res & C, res & L, res\\hline

5 & 1 & 2 & 1.26 & 5\\
hline
\end{tabularx}
\end{center}
\end{table}
```

4.5 bclogo – Creating colourful boxes with logos



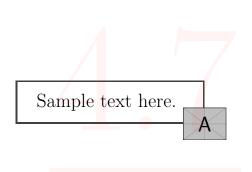
```
documentclass{article}
 usepackage{geometry}
\geometry{
paperwidth=8cm,
paperheight=14cm,
margin=0.5cm
 usepackage{xcolor}
usepackage[most]{tcolorbox}
usepackage[tikz]{bclogo}
 newtcolorbox\{framedd\}[1][]{
 colframe=lightgray,
  colback=yellow!40!white,
 enhanced jigsaw,
 sharp corners,
 lower separated=false,
  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}
definecolor{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 \textbf{!}};},
breakable,pad at break=1mm,
#1,
code = { \left\{ \left\{ \left\{ \left\{ \left\{ \left\{ \right\} \right\} \right\} \right\} \right\} \right\} \right\} } 
    \hookrightarrow tcbtitle\par\medskip\}\}\},
\begin{document}
\begin{caja}[title=warning]
The vertical alignment settings
\end{caja}
end{document}
```

4.7 Photo positioning

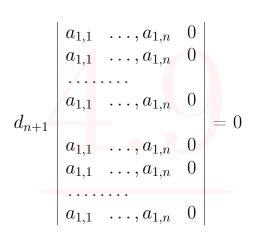


4.8 Absolutely centered cells (vertically and horisontally)

all	in	cells
are 🗸	centered	vertically
and	horisontally	Σ

\documentclass{article}			
\usepackage{float}			
\usepackage{array, makecell}			
\setcellgapes{5pt}			
\begin{document}			
$\begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array}$			
\center			
makegapedcells			
$\operatorname{begin}\{\operatorname{tabular}\}\{ c c c c \}$			
\hline			
$1\&1\&1\&1\setminus\setminus$ hline			
$1&1&1&1\setminus\setminus$ hline			
1&1&1&1\\ \hline			
\end{tabular}			
$\ensuremath{\mbox{end}\{ able\}}$			
$\ensuremath{\operatorname{Nend}} \{ \operatorname{document} \}$			

4.9 Martix made of table



```
documentclass[a4paper,14pt]{extreport}
begin{document}
\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 & \
& $a \{1,1\}$ & $\\dots, a \{1,n\}$ & 0 & \\
d_{n+1} & & & & & = \overline{p} pm 2ad_n$ = 0 \
& $a_{1,1}$ & $\\dots, a_{1,n}$ & 0 & \\
& a_{1,1} & \cdot 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}			
$\operatorname{begin}\{\operatorname{landscape}\}$			
$\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

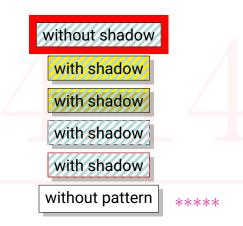


```
documentclass[a4paper,14pt]{extreport}
 usepackage[left=1.5cm,right=1.5cm,top=1.5cm,bottom=2cm,

→ 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}
```

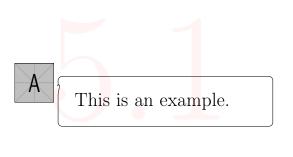
4.14 Text next to a table



```
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

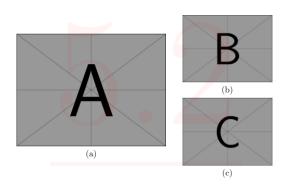
5.1 Comment to figure



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

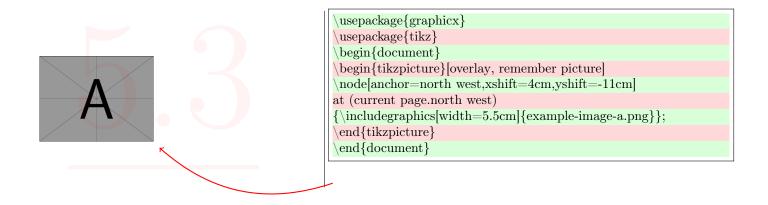
\begin{document}
\begin{tikzpicture}
\node [anchor=south west] at (0, 0) (cartoon) {\includegraphics[width \infty] \infty] \infty] \text{suidth, height=.15\textwidth} {\text{example-image-a}};
\node [anchor=north west, rectangle callout, draw=black, callout absolute pointer=(cartoon.east), rounded corners=3pt,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

5.2 Positioning $1 \mid 2$

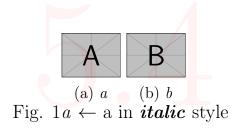


```
documentclass{article}
usepackage{graphicx}
usepackage{subfig}
begin{document}
\operatorname{begin}\{\operatorname{figure}\}[\operatorname{htp}]
centering
begin{tabular}{@{}c@{}}
end{tabular}\qquad % some space
\operatorname{begin}\{\operatorname{tabular}\{@\{\}c@\{\}\}\}
\operatorname{subfloat}\{\operatorname{includegraphics}[\operatorname{width}=0.3]\
\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}%
        \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\
  \includegraphics[width=.715\linewidth]{example-image-b}
  \operatorname{caption}\{ \operatorname{textit}\{b\} \}
  \left\{1b\right\}
  \end{subfigure}
  \caption{ }
  \label{fig1}
  end{figure}
  Fig. \left\{1a\right\}  \ in \left\{\text{textit}\left\{\text{italic}\right\}\right\} style
\end{document}
```

Numbering, enumeration, itemizing

6.1 Numbering in few columns

```
| \text{documentclass{article}} \\ \text{usepackage{multicol}} \\ \text{begin{document}} \\ \text{begin{multicols}{2}\%change to have more columns} \\ \text{begin{multicols}{2}\%change to have more columns} \\ \text{begin{multicols}{emumerate}} \\ \text{item c} \\ \text{item d} \\ \text{item d} \\ \text{item f} \\ \end{emud{enumerate}} \\ \end{multicols} \\ \end{document} \\ \end{documen
```

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}
 \definecolor{amethyst}{rgb}{0.6, 0.4, 0.8}
 definecolor{applegreen}{rgb}{0.55, 0.71, 0.0}
 \label{lem:color} $$ \define color {arylide yellow} {rgb} {0.91, 0.84, 0.42} $$
  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}
\label{lem:command} $$\operatorname{ClaudioList}_{red, applegreen, amethyst, carnationpink, blue! 50!}$
              \hookrightarrow cyan,arylideyellow,asparagus,atomictangerine,bananayellow,brightgreen

→ ,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}
```

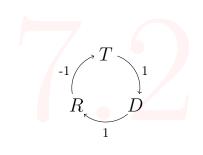
Plots, tikz, pie charts ...

7.1 Simple pie chart



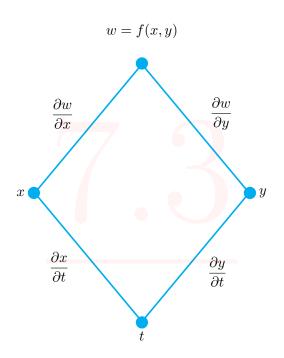
```
\documentclass[border=0.2cm]{standalone}
\usepackage{pgf-pie}
\begin{document}
\begin{tikzpicture}
\pie{22.97/Los Angeles Lakers,
22.97/Boston Celtics,
8.11/Golden State Warriors,
8.11/Chicago Bulls,
6.76/San Antonio Spurs,
31.07/Other Teams}
\end{tikzpicture}
\end{document}
```

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}
\label{lem:condition} $$ \usepackage[left=1.5cm,right=1.5cm,top=1.5cm,bottom=2cm,bindingoffset=0] $$

→ 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)\};
     \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$};
     \hookrightarrow partial t}$};
     \node [below=0.5cm,left=0.1cm] (h) at (d.220) {\frac{\color{0.5cm},\color{0.5cm}}{\color{0.5cm}}}
          \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

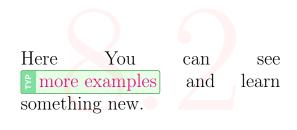
8.1 Words highlighting 1

```
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]{\no line,
\arc=7pt,colback=#1!10!\white,colframe=#1!50!\black,
\before \upper={\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,

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

\uphature \gamma\gamma\gamma\gamma\gamma\text{solback}=green!50!black, coltext=green!25!black, colback=green

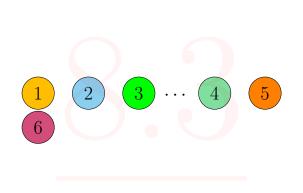
\uphature !10!white, overlay={\begin{tcbclipinterior} \fill[green!75!blue!50!

\uphature white] (frame.south west) rectangle node[text=white,font=\sffamily\

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

\uphature end{tcbclipinterior}}}
\underset{begin{document}}
\underset{mylib{recieve}}
\underset{end{document}}
\underset{end{document}}
```

8.3 Colored circles



```
usepackage{tikz}
usepackage[framemethod=TikZ]{mdframed}
\usepackage{xcolor}
usetikzlibrary{calc}
makeatletter
\newlength{\mylength}
\xdef\CircleFactor{1.1}
\setlength\mylength{\dimexpr\f@size pt}
\newsavebox{\newbox{\newbox}}
\hookrightarrow WL1/}#1}}\setlength\mylength{\dimexpr\CircleFactor\dimexpr\ht\
     \begin{tabular}{l} \hookrightarrow \begin{tabular}{l} mybox+\dp\mybox\relax}\tikzset\{mystyle/.style=\{circle,\#1,
     → minimum height={\mylength}}} \tikz[baseline=(char.base)]
\node[mystyle] (char) {\#2};
\displaystyle \operatorname{definecolor}\{\operatorname{amber}\}\{\operatorname{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}
\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} $$ \operatorname{linner sep=0pt, \#1}(\text{textnode})_{\boldsymbol{\#3}}; $$
         \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=|\begin{tabular}{l} bf series]{path picture shading=} \\
            \rightarrow rainbow}{\parbox[b]{1.5\linewidth}{\strut\lipsum[1]}}
\end{document}
```

9.4 Single Watermark

```
Lowen ispums dober at sunt, consectiven adjusting det. Ut pursus ells, vederloams ut, placera as, adjusting with a filter gravith matrix. Non arcs illuses, nonummy eyet, consectivent di, veliparta as manges. Dokes velocitate angues en noque velocitate march trincings sowerias et active et malemada finance a trape opstas. March of fice, Cun vivera nortan income de la march of transportation of the contractive expense and the contractive expense expense and the contractive expense expense and the contractive expense expens
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Sed commodo posuver podo. Maurisr ut est. Ut quis pursu. Sed ac collo. Sel vehicula hendreti sem. Duis ons dello. Medvà ut dul. Ged accuman risme pest declo. In hac helbatson plates dichema. Pellentroquejico est. Pieze sed quisco us uma porta tatelendat. Mauris felis odio, solicitudin sed, vehitpat a, ornare as, erat. Morbi quis dobr. Desce pellentroque, erai se asgittis sumper, num dia beborti pruva, quis compes puras menta utilizio tecla. Peine si quan. Cleas apparta tardiz nichesto nostra, per rouns, quis compes puras menta utilizio tecla. Peine si quan. Cleas apparta tardiz nichesto nostra, per

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Modé la fexts, wist vieurs fanciène pretium, mils est plègrent ofto, ine commodo wist emis quet quame. Quienge libros jonce connectivar s, faquis l'unis pettut emis la leven Supendino dei marie tude el silladiricam lancalant. Maccanes unitrice escentificame en l'accessor de la lapert voltpat ofto. Vertifiulium aute liprosa preimi in fanchione celle tuttiere pouver enfella Caure Felletteneque it aut pete de sur activité conscription. Mallan elementum uma vid imperfeit sociales, dit poum phaetra light, ae pretium ante junto a milla. Cambifur tristique aure cu mettu. Vestificame una video de la conscription de la con

Superalise vitue ellt. Alegam accu gene ongene in, ulluncesper quis, commodo en, libero. Fusce sagittic erast a ext trictique.

Miller Marcans again libero, nobleciri, icholorii in, soldes sept, dui. Morki ultrices rutrum licenu, Num elementum ulluncoppe los. Medri dui. Aluguma agaittis. Nine placerar. Relintatesper tristique soluble est. Maccuna imperdiet lacinis volt. Can non uma consecue de la commentation de la pertun demanda, duin al pertun devanda, chim un consecue de la commentation of loss on med vitia. Vita popur son, ence Pressure malcanda, chim al pertun demanda, chim al pertun demanda chim allo pertun demanda chim allo pertun demanda.

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 manuris. Curabitu
maksanada gria ris armat, massas. Puedo blandt. Rileguam enti volotta, Adiegam entismod. Acenon vel 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.

Aliquarilectus. Vivanura Ioo. Quisque ornare tellus ullancorper milla. Mauris portitior pharetra tortor. Sod fringilla justo sor mauris. Mauris (Euro, Sed no luo, Ngillan elementum, magain ne cursus sociales, augue est sederisque sapien, venenaties congue milla arcu et pede. Ul suscipit enim ser sapien. Donce congue. Maccenas urna mi, suscipit in, placerat ut, vestibulum ut, massa. Fusc utrices milla et nil.

```
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```

9.5 Full page of Watermarks

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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} $$ \left[ \frac{\log . jpeg}{hfill\% YOUR IMAGE \setminus logo.jpeg} \right] YOUR IMAGE $$ \left[ \frac{\log . jpeg}{hfill\% YOUR IMAGE \right] $$
      \label{logo.jpeg} $$\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\} 
       \squareDupImage\square[2ex]
       \DupImage\\
      \DupImage\\
                         [2ex]
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       \square DupImage \setminus [2ex]
       DupImage\\[2ex
       DupImage \setminus [2ex]
      \square 
       \square DupImage \setminus [2ex]
      \square \left( \operatorname{DupImage} \right) 
\begin{document}
drop=0.1 \times BgThispage \times [1-8]
\end{document}
```