Some commands to create a grid (5x5 or Seyes or Ruled) and to write "on" the lines.

- Possibility to personalize size, margins, ...

<table>
<thead>
<tr>
<th>my text on line 1...</th>
</tr>
</thead>
<tbody>
<tr>
<td>my centered text on line 2...</td>
</tr>
<tr>
<td>my right-align text on line 3...</td>
</tr>
<tr>
<td>my 2-squares shifted text on line 4...</td>
</tr>
<tr>
<td>my text, sans serif, on line 6...</td>
</tr>
<tr>
<td>my 1-square shifted text on line 7...</td>
</tr>
</tbody>
</table>

- \( 1 + \frac{1}{2} = \frac{3}{2} \) et \( (1 + x)^2 = 1 + 2x + x^2 \) on line 3...

- my text on line 4...

Thanks to Patrick Bideault for ideas and help!
Usage

1 The package

1.1 Loading of the package, used packages

The package \texttt{WriteOnGrid} loads within the preamble:

\begin{verbatim}
\usepackage{WriteOnGrid}
\end{verbatim}

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\begin{verbatim}
\usepackage{WriteOnGrid}
\end{verbatim}

It's mostly compatible with \texttt{latex}, \texttt{pdflatex}, \texttt{lualatex} or \texttt{xelatex} compilation!

For a better compatibility, \texttt{xcolor} isn't charged anymore with options, so the useful colors are directly defined within the package.

It loads the following packages and libraries:

- \texttt{tikz} with the libraries \texttt{(calc)} and \texttt{(positionning)};
- \texttt{xstring}, \texttt{xparse} and \texttt{simplekv}.

1.2 The package itself

The idea is to, thanks to \texttt{TikZ}, propose commands and environment to work with a grid, and to write on the lines.

\begin{verbatim}
% environment, with keys to prepare the grid 
% commands to write or pass a line
\begin{EnvGrid}[keys]<color>
 \WriteLine[keys]<alignment>{text}
 \PassLine
\end{EnvGrid}
\end{verbatim}

1.3 Overall functioning

The grid is given by the number of squares (nbCol \times nbRow), and after we can adjust with \textit{overtakings} to enlarge the grid onto the margins of the paper (left or right). We can also \textit{adjust} the global margin, to begin the lines differently.

For example, a \texttt{5 \times 5} grid:

- with a size \texttt{24x5} squares;
- with an overtaking by \texttt{2} squares at the left and \texttt{3} squares at the right;
- with a global margin of \texttt{1} square;
- with a \texttt{border} to show the \textit{basis} grid.

The \texttt{tikzpicture} is \textit{bounded} by the \texttt{border}, in order to specify overtakings or alignment.

Le left-border of the \texttt{border} is aligned on the left-margin of the page, so take care of the \texttt{\parindent}.
1.4 Predefined colors

The package WriteOnGrid proposes "shortcuts" for classic colors!

\definecolor{TyrianPurple}{rgb}{0.4,0.01,0.24}
\definecolor{PapierRose}{HTML}{E6B8E6}
\definecolor{PapierGris}{HTML}{D7E2EE}
%Colors for Seyes
\def\ColSeyes{PapierRose/PapierGris}
%Colors for Ruled
\def\ColRuled{PapierGris/TyrianPurple}
2 Commands, keys and options

2.1 The command

\DispGrid{\texttt{keys}}{\texttt{color}}

The first argument, \textit{optional}, between [...] give the \texttt{(keys)}:

- \texttt{(NumSquares)} to specify the size of the grid, under \texttt{(nbCol)x(nbRow)}; default : \texttt{17x5}
- \texttt{(Unit)} to specify the scale of the grid; default : \texttt{1}
- \texttt{(Margin)} to specify the global margin at the beginning of the lines; default : \texttt{0}
- the boolean \texttt{(DispBar)} to display or not the bar; default : \texttt{true}
- \texttt{(Enlarge)} to specify the squares-overtakings, globally with \texttt{LR} or side by side with \texttt{L/R}; default : \texttt{0}
- the boolean \texttt{(Border)} to display the basis border of the grid; default : \texttt{false}
- the key \texttt{(Grille)}, from \texttt{5x5/Seyes/Ruled}, to specify the grid’s type.

The second argument, \textit{optional}, between <...> is the color(s) of the grid:

- by \texttt{(Color)} (\texttt{lightgray!50} by default) for \texttt{5x5};
- by \texttt{(ColorA/ColorB)} (\texttt{lightgray!50/lightgray!25} by default) for Seyes or Ruled.
2.2 The environment

%environment, with keys to prepare the grid
\begin{EnvGrid}[keys]<color>
\end{EnvGrid}

The first argument, optional, between [...] give the keys:

- **(NumSquares)** to specify the size of the grid, under \(nbCol \times nbRow\); default: (17x5)
- **(Unit)** to specify the scale of the grid; default: (1)
- **(Margin)** to specify the global margin at the beginning of the lines; default: (0)
- **(Enlarge)** to specify the squares-overtakings, globally with LR or side by side with L/R; default: (0)
- the boolean **(DispBar)** to display or not the bar; default: (true)
- **(Border)** to display the basis border of the grid; default: (false)
- the key **(Grille)**, from 5x5/Seyes/Ruled, to specify the grid’s type.

The second argument, optional, between <...> is the color(s) of the grid:

- by **(Color)** ([lightgray!50] by default) for 5 \times 5;

%18x4 big squares, w/o overtaking, Seyes colors, 3-margin
\begin{EnvGrid}[NumSquares=18x4,Grid=Seyes,Margin=3]<\ColSeyes>
\end{EnvGrid}

%36x8 small squares, overtakings 3/3, PapierGris color
\begin{EnvGrid}[NumSquares=36x8,Enlarge=3/3]<\PapierGris>
\end{EnvGrid}

%12x3 lines "Ruled", w/o overtakings, Ruled colors, centered, with 2-margin
\begin{center}
\begin{EnvGrid}[NumSquares=12x3,Grid=Ruled,Margin=2]<\ColRuled>
\end{EnvGrid}
\end{center}
2.3 Write on the lines

The idea is to write on the created grid (environment !). In order to write right on the lines, we can:

- give the lines one by one;
- avoid using multilines paragraphs, items;
- pass a line.

\begin{EnvGrid}[NumSquares=36x8]
\WriteLine[Scale=1.5]{my text on line 1...}
\WriteLine[Scale=1.5]<center>{\textfamily my tetetype text centered on line 2...}
\WriteLine[Scale=1.5]<right>{right-align text on line 3...}
\WriteLine[Scale=1.5,OffsetH=0.1]{\textcolor{red}{red text, 1mm-shifted...}}
\PassLine
\WriteLine[Scale=0.5]<left>{\sffamily sans serif text, reduced by 50\%, on line 6...}
\WriteLine[Scale=1.5,OffsetH=3]{\cursive 3 squares-shifted text...}
\end{EnvGrid}

\begin{EnvGrid}[NumSquares=16x4,Margin=2,Grid=Ruled]<\ColRuled>
\WriteLine[Scale=1.5]{(1+x)^2=1+2x+x^2 on line 2, with 1-square offset...}
\WriteLine[OffsetH=-1]<left>{blue text, back to left, on line 3...}
\end{EnvGrid}

<table>
<thead>
<tr>
<th>WriteOnGrid</th>
<th>- 6 -</th>
</tr>
</thead>
</table>
3 Introduction

There’s few other possibilities with the package `WorkOnGrid`, but for the moment only with `french` keys, so there’s no specific documentation for these commands.

To sum up, they create full paper grid (by preference for `a4paper`), with the ability to write paragraph.

4 Example

```latex
\begin{PleinePageRuled}[NumLignes]
\LignePapierRuled[Echelle=1.25,Ligne=1]{C. PIERQUET \hfill LaTeX}
\LignePapierRuled[Echelle=1.25,Ligne=2,Couleur=red]<center>{\underline{\cursive\bfseries Evaluation 3}}}
\CadreNoteRuled(3)
\LignePapierRuled[Echelle=1.25,Ligne=8,Couleur=green!50!black]{\sffamily\underline{Exercise 1 :}}
\ParagraphePapierRuled[Ligne=9]{\cursive\lipsum[1]}
\ParagraphePapierRuled[Ligne=22]
\%
\hspace{1cm}
\begin{equation}
1+\frac{1}{2}=\frac{3}{2}
\end{equation}
\text{\textit{inline, with several lines.\}}
\text{\textit{Another math example, $\int_0^1 2x \, dx = 1$.}}
\text{\textit{A new line now!}}
\end{PleinePageRuled}
```

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Exercise 1:


We try with math, $1 + \frac{1}{2} = \frac{3}{2}$, inline, with several lines.

And another math example, $\int_0^1 2x \, dx = 1$.

A new line now!
History

v0.1.4: New [keys] + enhancements for paragraphs, for french version (for the moment...)

v0.1.4: xcolor isn't loaded with [table,svgnames])

v0.1.3: Command to display a grid (w/o writing on it)

v0.1.2: Shortcuts for default colors + small bugfixes

v0.1.1: Best color choice

v0.1.0: Initial version