NYU TEX

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1. Introduction

NYU TEX is a series of macros (styles) for writing papers and slides in TEX and LATEX. Although the macros live on top of LATEX's article document class, I use a series of original TEX commands, so I simply designate the overall package as NYU TEX. The macros are called with `\usepackage{nyutex}`. One of the options is `paper`, that is, `\usepackage[paper]{nyutex}`. This is the one I am using for this document. It reformats the title page, the margin sizes, the way table and figure captions are printed, section headings, and so on. In the next sections I describe a few additional commands that I have defined in the package. I will not be writing detailed documentation for the macros. They are sufficiently simple that you can actually go to the source and look them up — and possibly edit them to your own personal preferences. Happy TEXing!

2. Math stuff

Theorems and the like have been reformatted, e.g.,

Theorem 1. *Here is a theorem.*

There is also a `\proof` environment:

Proof: Here is the proof. ■

Sometimes, if the proof is in an appendix, you may prefer to write

Proof of Theorem 1: Here is the proof. ■

There are also many mini-macros that simplify math, e.g.,

$$\left.\frac{dy}{dx}\right|_{x\,=\,0} = 1$$

There is a whole host of commands for derivatives, partial derivatives, etc. Several of these allow you to write stuff in paragraphs, e.g., partial derivatives: $\partial y/\partial x = 1$, which sometimes looks better than $\frac{\partial y}{\partial x} = 1$.

This is a simple document to illustrate various macros I created over TEX and LATEX. The `\firstfootnote` feature is one of them. It produces this unnumbered footnote in the paper's first page (typically the title page).

Table 1
Example of how tabular was reformatted

Column 1	Column 2
Item 1	53
Item 3	35

The command brackets creates scaled-up brackets around math stuff:

$$\Big(a^2+b^2\Big)=c^2$$

Also available is `\sbrackets`, as in $\big[a+b\big]$. Use `\realset` and `\complexset` for $\mathbb{R}$ and $\mathbb{Z}$. The pairs of commands `\bdm` and `\edm` simplify `\begin{displaymath}` and `\end{displaymath}`; `\be` and `\ee` do the same for numbered equations.

3. Other general stuff

Here are a few additional changes to formats.

■ **Dividers.** I created `\blackbox` and `\whitebox` dividers. Sometimes these help creating subdivisions within a section, like the one I just did.

As you can see from Table 1, table headings have been reformatted (the same applies to figure headings). Moreover the tabular environment was reformatted to produce shaded tables, which I think look better. Also, in addition to the columns of type `p{}`, I also created columns of type `q{}`, which is basically `p{}` but right justified. Specifically, the format for Table 1 is `p{10ex}|q{10ex}`. The top row is darker because it starts with the command `\dgrayrow`.

Finally, the command `\shadedtext` allows you to print — you guessed it — shaded text.[1]

Here is an example of shaded text

4. Slides

By entering the option `slides` when you can `nyutex` you enter a completely new world: `nyutexslies`. Specifically, write `\usepackage[slide]{nyutex}` in the preamble. To learn more about slides, see the file `nyuslidedocumentation.tex` and the corresponding file `nyuslidedocumentation.pdf`

5. Graphs

The longest portion of my macros follows from the `graph` option. I am still cleaning this up and will add it to this documentation file as soon as it's ready. It is invoked by writing `\usepackage[graph]{nyutex}` in the preamble. Note that this may be cumulative with other options, such as `paper` and `slide`.

1. I also changed the footnote format. Basically, the footnote numbers appear separated from the footnote text, giving it an overall appearance that I think is a little better.