More \LaTeX \ Tricks

Mathematics

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Drawing

- \LaTeX provides the “picture” environment.
- Best for small, simple graphics.
- Best for lines - curves are hard...
Picture Environment

- Commands of form
  \( \texttt{\textbackslash put}(x,y)\{\texttt{\textbackslash command}(w,h)\{l\}\} \).
- \( \texttt{\textbackslash put} \) tells position of start
- \( \texttt{\textbackslash command} \) tells what to make
- \( w,h \) vary in meaning
- \( l \) usually gives size of item
Picture Environment

- \texttt{\textbackslash line} Line with slope \( h/w \), starting at \((x,y)\), x-axis width \( l \). \( w \) and \( h \) must be integers in (-6,6).

- \texttt{\textbackslash vector} Vector: \((x,y)+l*(w,h)\). \( w \) and \( h \) must be integers in (-4,4).

- \texttt{\textbackslash circle} Circle centered at \((x,y)\) with diameter \( \min(l,40\text{pt}) \).

- \texttt{\textbackslash makebox, \textbackslash framebox, \textbackslash dashbox} make text boxes of width \( w \) and height \( h \). Here, \( l \) is a string to be printed.
Picture Environment

- \texttt{\textbackslash thicklines} makes thicker lines for horizontal and vertical lines only.
- \texttt{\textbackslash linethickness\{dim\}} makes lines have thickness \texttt{dim} - horizontal and vertical only.
Prosper

- Makes Powerpoint-style presentation
- Not installed on all machines
- A little hard to use
- Equations!
Other Formats

- Unix commands:
  - **dvipdf** makes pdf files from your .dvi files
  - **ps2pdf** makes pdf files from postscript
  - **gs** is ghostscript - an image to anything converter.
  - **gv** is a good ps/pdf viewer
Defining Commands (Macros)

- \texttt{\textbackslash newcommand}[\texttt{number of args}]{\texttt{content}}
- Arguments are used by number in content: \#1,\#2,...
- \texttt{\textbackslash renewcommand} changes the definition of an existing command.