

Title text: LaTeX by example

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**Abstract**

Abstract text: this is a really simple example of how to create a LaTeX document. It shows how to create an article with equations, a table, a figure, a numbered list, and a BibTeX bibliography.

## Section header text

Here goes the main text. All you have to do is type it in. Use commands to change the text size or *style*.

To start a new paragraph, just have a line of empty space. Note that hitting return once without the empty space won't give you a new paragraph. Also, putting a comment into an empty space makes LaTeX ignore it, so you still don't get a new paragraph.

## Math

If you want to write math in a paragraph, use dollar signs around it like  $x = y$ . If you want a single equation outside of a paragraph, use the equation environment:

$$x = y.$$

If you want a set of equations outside of a paragraph, use the eqnarray environment. The and symbols tell LaTeX where to line things up and a double backslash starts a new line, like:

$$x = y \tag{1}$$

$$y = z \tag{2}$$

$$\Rightarrow x = z. \tag{3}$$

Having a label lets you refer to it in the text, like Equation 2. The first time you define a label, you have to run LaTeX twice: once so it picks up the label, and once so it recognizes the label it picked up in the reference commands. Note that having the \* in the environment means the equations are not numbered.

## Tables and figures

You can put in tables using the table environment, like Table 1.

Also, you can put in figures using the figure environment, like Figure 1.

## Adding references

You can cite references in your BibTeX file (a separate file with a .bib extension), like (Levin and Paine 1974; Roughgarden 1989). Depending on the bibliography style you choose, you can just cite the year, like Bulmer (1980).

Table 1: Put caption text in here.

Variable	Values
$x$	0 to 10
$y$	0 to 10
$z$	0 to 10

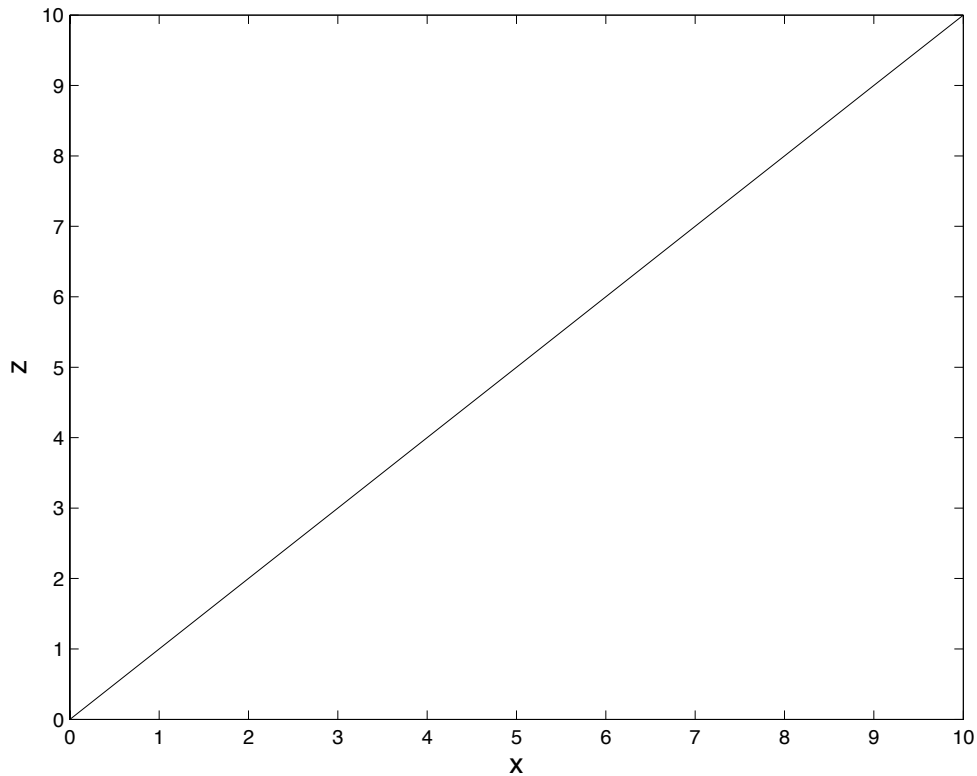


Figure 1: Put caption text in here.

To get LaTeX to recognize all of the references the first time you put in a citation, usually you run LaTeX, then BibTeX, then LaTeX once or twice more. Note that BibTeX only pulls out references that you refer to in your .tex document.

## References

- Bulmer, M.G. 1980. *The Mathematical Theory of Quantitative Genetics*. Clarendon Press, Oxford.
- Levin, S. A., and R. T. Paine. 1974. Disturbance, patch formation, and community structure. *Proc. Natl. Acad. Sci. U.S.A.* 71:2744–2747.
- Roughgarden, J. 1989. The evolution of marine life cycles. In *Mathematical Evolutionary Theory*, edited by M. W. Feldman, 270–300. Princeton University Press.

## Links

Some useful websites are:

1. <http://www.giss.nasa.gov/tools/latex/ltx-2.html> for LaTeX help and commands
2. <http://www.lagom.nl/latex/i2b/online.html> for converting Web of Science output into BibTeX format
3. <http://bib2web.djvuzone.org/bibtex.html> for BibTeX entries
4. <http://samizdat.mines.edu/latex/latex.ps> for “A Simplified Introduction to LaTeX” by Harvey Greenberg.