The LaTeX Template for Beginners

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Abstract

Hello world! This is my first LaTeX document.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Keywords: Learning; September

Contents

1 Mathematical Notations

1.1 superscripts

$$2x^3$$

$$3x^{88}$$

$$x^{4y^9+10}$$

1.2 Subscripts

$$x_1$$

$$y_{12}$$

$$a_0, a_1, a_2, \ldots, a_{100}$$

1.3 Greek letters

$$\pi$$

$$\Pi$$

$$\alpha$$

$$A = \pi r^2$$

1.4 Trig functions

$$y = \sin x$$

$$\tan \alpha = \frac{\sin \alpha}{\cos \alpha}$$

$$x = \csc \theta$$

$$y = \sin^{-1} x$$

$$y = \arcsin x$$

1.5 Log functions

$$y = \log x$$

$$y = \log_5 x$$

$$y = \ln x$$

1.6 Roots

$$\sqrt{2}$$

$$\sqrt[3]{x}$$

$$\sqrt{x^2 + y^2} = 10$$

$$\sqrt{1 + \sqrt{x}}$$

1.7 Fractions

$$\frac{1}{2}$$

About $\frac{2}{3}$ of the glass is full.

About $\frac{2}{3}$ of the glass is full.

About $\frac{2}{3}$ of the glass is full.

$$\frac{\sqrt{x+1}}{\sqrt{x+2}}$$

$$y = \frac{1}{1 + \frac{1}{x}}$$

A rectangle has side lengths of $(x+1)$ and $(x+3)$.A hard return is going to start a new paragraph.
A rectangle has side lengths of $(x + 1)$ and $(x + 3)$. \\ is a soft return and therefore the line is not indented.

The equation

$$A(x) = x^2 + 4x + 3$$

gives the area of the rectangle.
{} makes sure to keep your equation on a line.(Trevisanato & Kim, 2000)

$$\alpha^2 + \beta^2 = \gamma^2 \tag{1}$$

Famous Gaussian quadrature:

$$\begin{aligned} S &= 1 + 2 + 3 + \cdots + n \\ S &= n + (n-1) + (n-2) + \cdots + 1 \\ 2S &= (1+n) + (2+(n-1)) + (3+(n-2)) + \cdots + (n+1) \\ 2S &= n(n+1) \\ S &= \frac{n(n+1)}{2} \end{aligned} \tag{2}$$

Formulas for various situations:

$$F(x) = \begin{cases} 0 & \text{, if } x < -1 \\ x+1 & \text{, if } x > 3 \\ 1 & \text{, otherwise.} \end{cases} \tag{3}$$

$$a^2 + b^2 = c^2$$

2 Brackets

The distributive property states that $a(b+c) = ab + ac$, for all $a, b, c \in \mathbb{R}$

The equivalence class of a is $[a]$

The set A is defined to be $\{1, 2, 3\}$.

The movie ticker costs \$11.50.

$$2(\frac{1}{x^2-1})$$

$$2\left(\frac{1}{x^2-1}\right)$$

$$2\left[\frac{1}{x^2-1}\right]$$

$$2\left\{\frac{1}{x^2-1}\right\}$$

$$2\left\langle \frac{1}{x^2-1} \right\rangle$$

$$2\left| \frac{1}{x^2-1} \right|$$

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

$$\left(\frac{1}{1+\left(\frac{1}{x-1}\right)} \right)$$

3 Insertion of pictures

Try to insert vector graphics(McKay & Blumberg, 2002) so that the image will not change in clarity when it is enlarged or reduced.

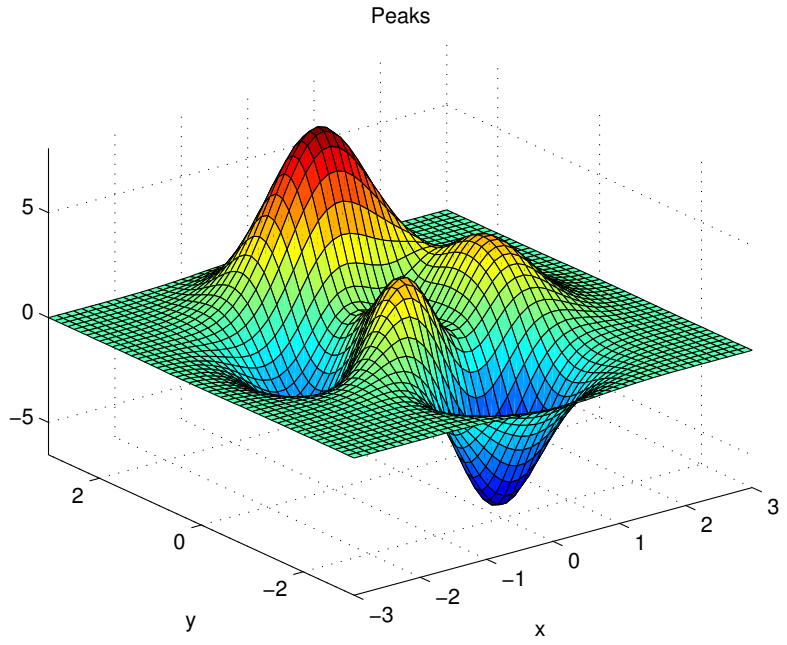

Figure 1: idk what

Reference test Equation 1

4 Sheet

x	1	2	3	4	5
$f(x)$	d	d	w3	f8iw	viu

Table 1: Sweet baby

Table 2: My first table

Variable Name	Meanings
N	Nodes, eg. Ng denotes the set of Goal Nodes
A	Adjacency matrix
G	Relationship Network Model(Yang & Wang, 1993)
x	The degree of realization of SDGs, as a 1*17 matrix
Δx	Perturbations arising, for 1*17 matrix
c	Anti-interference coefficient, related

References

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Trevisanato, S. I., & Kim, Y. I. (2000). Tea and health. *Nutrition reviews*, *58*(1), 1–10.

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