## The LaTeX Template for Beginners

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#### Abstract

Hello world! This is my first LATEX document.

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Keywords: Learning; September

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## 1 Mathematical Notations

### 1.1 superscripts

$$2x^{3} \\ 3x^{88} \\ x^{4y^{9}+10}$$

## 1.2 Subscripts

$$x_1$$
 $y_{12}$ 
 $a_0, a_1, a_2, \dots, a_{100}$ 

#### 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

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).  $\setminus \setminus$  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:

$$S = 1 + 2 + 3 + \dots + n$$

$$S = n + (n - 1) + (n - 2) + \dots + 1$$

$$2S = (1 + n) + (2 + (n - 1)) + (3 + (n - 2)) + \dots + (n + 1)$$

$$2S = n(n + 1)$$

$$S = \frac{n(n + 1)}{2}$$
(2)

Formulas for various situations:

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

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

# 2 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.

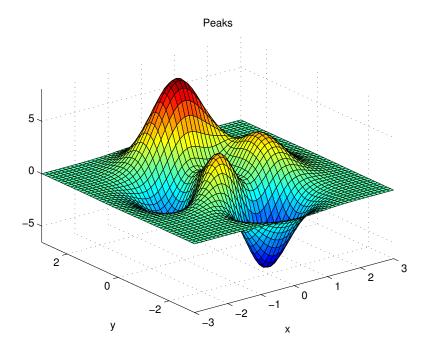


Figure 1: idk what

Reference test Equation 1

### 3 Sheet

Table 1: My first table

Variable Name	Meanings
$\overline{N}$	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
$\Delta x$	Perturbations arising, for 1*17 matrix
c	Anti-interference coefficient, related

## References

McKay, D. L., & Blumberg, J. B. (2002). The role of tea in human health: an update. *Journal of the American College of Nutrition*, 21(1), 1–13.

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

Yang, C. S., & Wang, Z.-Y. (1993). Tea and cancer. JNCI: Journal of the National Cancer Institute, 85(13), 1038–1049.