

My First Latex Document

Rana Universe*

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Figure 1: Rana Universe logo in black circle

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The mass-energy equivalence is described by the famous equation

$$E = mc^2$$

discovered in 1905 by Albert Einstein. In natural units ($c = 1$), the formula expresses the identity

$$E = m \tag{1}$$

Let's Start Using the **'amsmath'**

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$$\begin{aligned} A &= \frac{\pi r^2}{2} \\ &= \frac{1}{2}\pi r^2 \\ A &= \frac{\pi r^2}{2} \\ &= \frac{1}{2}\pi r^2 \end{aligned} \tag{2}$$

$$\begin{aligned} A &= \frac{\pi r^2}{2} \\ B + C + XYZ &= \frac{1}{2}\pi r^2 \end{aligned} \tag{3}$$

$$\begin{aligned} y &= a + bc + def + xy + 98 + 89x + yt + ty^2 + \alpha + \beta + \gamma + m^2 + n^3 + \frac{a}{b} \\ &\quad + \sqrt{x^2 + y^2} + \delta + \epsilon + pq + rs + tu + vw + xyz + \alpha + \beta + \gamma + m^2 \\ &\quad + n^3 + \frac{a}{b} + \sqrt{x^2 + y^2} + \delta + \epsilon + pq + rs + tu + vw + xyz + \alpha + \beta + \gamma \\ &\quad + m^2 + n^3 + \frac{a}{b} + \sqrt{x^2 + y^2} + \delta + \epsilon + pq + rs + tu + vw + xyz + 1234 \end{aligned} \tag{4}$$

Let's Write some basic Pythagorean themorem.

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

Here 'c' represents the hypotenuse, and 'a' and 'b' represent the other two sides.

Below the equation number will start form my own wish like number 1 automatically.

$$a^2 + b^2 = c^2 \tag{1}$$

As shown in Equation 1, the sides of a right triangle follow this relation.

$$a^2 + b^2 = c^2 \tag{Rana 1}$$

Upper is a another example of using numbering by myself manually.

As shown in Equation **Rana 1**, which numbering was added manually is now working.

Let's Use some more type of equatoins numbering.

$$a + b = c \tag{000}$$

$$a^3 + b^3 = c^3 \tag{2}$$

This below 2 manually numbering is not good.

$$a + b = c \quad \dots (1)$$

$$a + b = c \quad \dots (1)$$

The well known Pythagorean theorem $x^2 + y^2 = z^2$ was proved to be invalid for other exponents. Meaning the next equation has no integer solutions:

$$x^n + y^n = z^n$$

Here is a famous quote:

In physics, the mass-energy equivalence is stated by the equation $E = mc^2$, discovered in 1905 by Albert Einstein.

And now back to the main text.
Standard L^AT_EX practice is to write inline math by enclosing it between `\(...\)`:

In physics, the mass-energy equivalence is stated by the equation $E = mc^2$, discovered in 1905 by Albert Einstein.

Instead of writing (enclosing) inline math between `\(...\)` you can use `$...$` to achieve the same result:

In physics, the mass-energy equivalence is stated by the equation $E = mc^2$, discovered in 1905 by Albert Einstein.

Or, you can use `\begin{math}...\end{math}`:

In physics, the mass-energy equivalence is stated by the equation $E = mc^2$, discovered in 1905 by Albert Einstein.

The equation $a + b = c$ is simple.

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

$$a + b = c \tag{3}$$

$$a^2 + b^2 = c^2 \tag{4}$$

$$a^3 + b^3 = c^3 \tag{5}$$

$$a^4 + b^4 = c^4 \tag{6}$$

$$a + b, \quad a - b, \quad a \times b, \quad a \div b$$

$$a + b, \quad a - b, \quad a \times b, \quad a \div b$$

$$a + b, \quad a - b, \quad a \times b, \quad a \div b$$

I love this Upper Examples.

Hello, **Rana!**
Hello, **Universe!**
Hello, **RanaUniverse!**

I am Rana Universe...(1)
I am Rana Universe...(2)
I am Rana Universe...(3)
I am Rana Universe...(4)
I am Rana Universe...(5)
I am Rana Universe...(6)
I am Rana Universe...(7)
I am Rana Universe...(8)
I am Rana Universe...(9)

1. I am Rana Universe...
 1. I am Rana Universe...
2. I am Rana Universe...
 2. I am Rana Universe...
3. I am Rana Universe...
 3. I am Rana Universe...
4. I am Rana Universe...
 4. I am Rana Universe...
5. I am Rana Universe...
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 6. I am Rana Universe...
7. I am Rana Universe...
 7. I am Rana Universe...
8. I am Rana Universe...
 8. I am Rana Universe...
9. I am Rana Universe...
 9. I am Rana Universe...

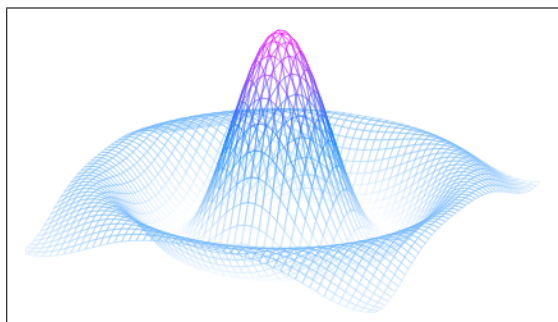


Figure 2: **A nice plot.**

As you can see in **Figure 2**, the function grows near the origin. This example is on page 8.

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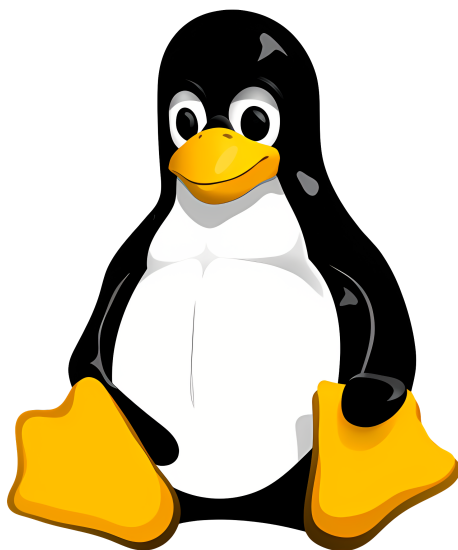


Figure 3: **Linux Logo**

Now in *Figure 3*, you can see the famous Linux logo. This is shown on page 8.

I am Rana Universe...
I am Rana Universe...
I am Rana Universe...
I am Rana Universe...
I am Rana Universe...
I am Rana Universe...
I am Rana Universe...
I am Rana Universe...
I am Rana Universe...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur 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.

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