

L^AT_EX Demonstration

Alpuds

October 1, 2022

Contents

1	Learn L^AT_EX	2
2	Math	2
2.1	Percent error	2
2.2	5% rule	2
2.3	Exponent to radical	2
2.4	Functions	2
2.4.1	Linear	2
2.4.2	Exponential	3
2.4.3	Quadratic	3
3	Text formatting	3
4	Lists	3
4.1	Unordered list	3
4.2	Ordered list	3
4.3	Nested list	4
5	Japanese	4

1 Learn L^AT_EX

To learn L^AT_EX, go to [Overleaf](#).

2 Math

2.1 Percent error

$$\left| \frac{\text{accepted value} - \text{lab}}{\text{accepted value}} \right| \times 100 = \% \text{ error} \quad (1)$$

This formula is used to determine the percent error. With this, if the result is less than 10%, then data recollection is not necessary.

2.2 5% rule

$$\left| \frac{\text{y-int}}{\text{y-max}} \right| \times 100 \quad (2)$$

This formula is used to determine if the y-intercept is negligible. If the result is less than 5%, then the y-intercept can be ignored. This is because the y-intercept is insignificant. If the result is greater than 5%, then data recollection may be required.

2.3 Exponent to radical

$$5^{\frac{4}{3}} = \sqrt[3]{5^4} \quad (3)$$

The 3 is the index, the 5 is the base, and the 4 is the exponent.

$$8^{\frac{9}{2}} = \sqrt{8^9} \quad (4)$$

In this example, the 2 is omitted in the square root because the root symbol by itself is understood to mean square root.

2.4 Functions

2.4.1 Linear

$$f(x) = mx + b \quad (5)$$

A linear function means the line goes in a constant rate, thus linear. m is the rate, so the larger the number, the higher the rate of change is. b is the y-intercept. This is basically the starting number when $x = 0$.

2.4.2 Exponential

$$f(x) = b^x \quad (6)$$

Transformation: $g(x) = a(b)^{x-h} + k$

When the equation has $-h$, then the number is the amount that the exponential equation moved right. A way to remember this is that it is the opposite of what you would think. So, $-$ means left which means the opposite is right. $+k$ is the amount that the equation moved up.

2.4.3 Quadratic

$$f(x) = ax^2 + bx + c \quad (7)$$

3 Text formatting

This sentence has a **bold**, *italic*, and underlined text.

4 Lists

4.1 Unordered list

The following is a list of visual novel game companies:

- Type-Moon
- Key
- ASa Project
- Nitro Plus
- Frontwing

4.2 Ordered list

The recommended route order in 月姫 (Tsukihime) is the following:

1. アルクエイド (Arcueid)
2. シエル (Ciel)
3. 秋葉 (Akiha)
4. 翡翠 (Hisui)
5. 琥珀 (Kohaku)

4.3 Nested list

- Key
 1. Clannad
 2. リトルバスターズ！(Little Busters!)
 - クドわふたー (Kud Wafter)
 3. リライト (Rewrite)
 - リライトハーヴェストフェスタ! (Rewrite Harvest festa!)
- Type-Moon
 1. Fate Stay/Night
 - Fate/hollow ataraxia
 2. 魔法使いの夜 (Mahoutsukai no Yoru; Which on the Holy Night)
 3. 月姫 (Tsukihime; Moon Princess)
 - 歌月十夜 (Kagetsu Tooya)
- Nitro Plus
 1. Steins;Gate
 2. 沙耶の唄 (Saya no Uta; Saya's Song)
 3. 君と彼女と彼女の恋 (Kimi to Kanojo to Kanojo no koi; YOU and ME and HER)

5 Japanese

これは日本語です。¹

The above Japanese text means “This is Japanese”.

¹日本語 means “Japanese language”