Math is used for writing a mathematical equation. There are multiple ways you can insert an equation.

Inline equation y = ax + b will insert the equation in between sentences.

Display equation

$$y = ax + b$$

will insert the equation in the new line.

This is not equal to

Display equation

y = ax + b

will insert the equation in the new line.

You can see, using  $\dots$  with a new line will result in a new paragraph while  $\dots$  won't.

Now, there are three ways you can do inline equation.

1. 
$$y = ax + b$$

$$2. \ y = ax + b$$

3. 
$$y = ax + b$$

And there are the ways for **Display equation**.

1.

$$y = ax + b$$

2.

$$y = ax + b$$

3.

$$y = ax + b$$

4.

$$v = ax + b \tag{1}$$

Note that  $\LaTeX$  not recommended to use  $\$  anymore.