

# Latex- Computer Tools Tats

Dimobi E.B.

December 2021

## 1 Formulas

Depending on the value of  $x$  the equation  $f(x) = \sum_{i=0}^n \frac{a_i}{1+x}$  may diverge or converge.

$$f(x) = \sum_{i=0}^n \frac{a_i}{1+x}$$

Inline maths elements can be set with a different style:  $f(x) = \frac{1}{1+x}$ . The same is true for display math material:

$$\begin{aligned} f(x) &= \sum_{i=0}^n \frac{a_i}{1+x} \\ f(x) &= \sum_{i=0}^n \frac{a_i}{1+x} \\ f(x) &= \sum_{i=0}^n \frac{a_i}{1+x} \\ f(x) &= \sum_{i=0}^n \frac{a_i}{1+x} \end{aligned}$$

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:

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

$$e^{\pi i} + 1 = 0 \tag{1}$$

The beautiful equation 1 is known as the Euler equation.

This is a polynomial equation

$$p(x) = 3x^6 + 14x^5y + 590x^4y^2 + 19x^3y^3 - 12x^2y^4 - 12xy^5 + 2y^6 - a^3b^3 \tag{2}$$

The binomial coefficient is defined by the next expression:

$$nk = \frac{n!}{k!(n-k)!}$$

(3)

$$\int_0^1 x^2 + y^2 \, dx$$

$$x^{2\alpha} - 1 = y_{ij} + y_{ij}$$