

# Math Equations in L<sup>A</sup>T<sub>E</sub>X

November 24, 2018

Equation with number

$$x = y + z \tag{1}$$

Equation without number

$$x = y + z$$

Function

$$f(x) = x^2 \tag{2}$$

Series

$$f(x) = x_1 + x_2 + x_3 + ..... + x_n \tag{3}$$

Sum

$$f(x) = \sum_{i=1}^n x_i \tag{4}$$

Integration

$$f(x) = \int_{i=1}^n x_i \tag{5}$$

Cases

$$X = \begin{cases} 5, \text{ if } X \text{ is divisible by } 5 \\ 10, \text{ if } X \text{ is divisible by } 10 \\ -1, \text{ otherwise} \end{cases} \tag{6}$$

Fraction

$$X = \frac{X_i}{X_i} \tag{7}$$

Complex Formulas

$$X = \frac{\sum_{i=1}^n x_i}{\sum_{i=1}^n x_i} \tag{8}$$

Math Symbols

$$\Phi = \int_0^\infty \phi(z) dz \tag{9}$$