Mathematic Symbols

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1 Basic Features

Basic features of formulas, e.g. How to place formulas properly.

Inline formulas example Words before $B(a, b)$ words after.

Newline formulas example Newline formulas example. Words before

$$B(a, b)$$

words after.

2 Operators

Basic operators and symbols.

Examples Quad: $A \quad B$.
Power: $e^{-b \times c}$.
Sqrt: $\sqrt{b \times c} \times d$.
Frac: $\frac{a}{b+c}$.
Others: $+, -, \times, \div, \pm, \mp$.
$\cup, \cap, \sqcup, \sqcap, \uplus$.
$\cdot, \star, *, \circ, \bullet, \diamond$.
$\oplus, \odot, \ominus, \oslash, \bigcirc, \otimes, \triangle, \bigtriangledown, \lhd, \rhd$.
$\vee, \wedge, \amalg, \dagger, \ddagger, \wr$.

3 Set Operators

Set operators.

Examples Forall: $\forall a$.
Exists: $\exists a$.
In: $a \in A$.
NotIn: $A \notin B$.
Union: $\bigcup A$.
Inter: $\bigcap A$.
Minus: $A \setminus B$.
Empty: $\emptyset$.

4 Differential and Integral Calculus

Calculus of Differential and integral.

Examples Sum: $\sum_{i=1}^{\infty}$.
Prod: $\prod_{i=1}^{\infty}$.
Integral: $\int_{x=0}^{\infty} f(x)dx$.
Circular integral: $\oint_s f(s)ds$
Partial: $\frac{\partial}{\partial x} f$.

5 Notions

Special notions.

Examples Underbrace: $\underbrace{A + B + C + \cdots + Z}_{26}$.
Overbrace: $\overbrace{A + B + C + \cdots + Z}^{26}$.
Leftarrow: $\xleftarrow[bottom]{top}$.
Rightarrow: $\xrightarrow[bottom]{top}$.
Tops: $\vec{a}, \hat{a}, \widehat{a}, \grave{a}, \bar{a}, \dot{a}, \ddot{a}, \check{a}, \tilde{a}, \widetilde{a}$
Laplace: ∇a
Dots: $\dot{a}, \ddot{a}$
Tail: a'

6 Greek letters

Greek letters

Lowercase letters $alpha - \alpha, beta - \beta, gamma - \gamma, delta - \delta, epsilon - \epsilon$
$varepsilon - \varepsilon, zeta - \zeta, eta - \eta, theta - \theta, vartheta - \vartheta$
$iota - \iota, kappa - \kappa, lambda - \lambda, mu - \mu, nu - \nu$
$xi - \xi, pi - \pi, varpi - \varpi, rho - \rho, varrho - \varrho$
$sigma - \sigma, varsigma - \varsigma, tau - \tau, upsilon - \upsilon, phi - \phi$
$varphi - \varphi, chi - \chi, psi - \psi, omega - \omega$

Uppercase letters $Gamma - \Gamma, Delta - \Delta, Theta - \Theta, Lambda - \Lambda, Xi - \Xi, Pi - \Pi, Sigma - \Sigma, Upsilon - \Upsilon, Phi - \Phi, Psi - \Psi, Omega - \Omega$