Review/Reference of Greek letters, Mathematical Symbols and Operators

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1 Greek Letters (Lower case)

α - Alpha

β - Beta

γ - Gamma

δ - Delta

ϵ - Epsilon

ζ - Zeta

η - Eta

θ - Theta

ι - Iota

κ - Kappa

λ - Lambda

μ - Mu

ν - Nu

ξ - Xi

o - Omicron

π - Pi

ρ - Rho

σ - Sigma

τ - Tau

υ - Upsilon

ϕ - Phi

χ - Chi

ψ - Psi

ω - Omega

2 Greek Letters (Upper case)

A - Alpha

B - Beta

Γ - Gamma

Δ - Delta

E - Epsilon

Z - Zeta

H - Eta

Θ - Theta

I - Iota

K - Kappa

Λ - Lambda

M - Mu

N - Nu

Ξ - Xi

O - Omicron

Π - Pi

P - Rho

Σ - Sigma

T - Tau

Υ - Upsilon

Φ - Phi

X - Chi

Ψ - Psi

Ω - Omega

3 Operators and symbols

A^T - Transpose of A

A^* - Complex Conjugate Transpose of A

A^{-1} - Inverse of A

$\mathrm{A}^\dagger$ - Pseudoinverse of A

$>$ - Is greater than

$<$ - Is less than

$\geq$ - Is greater than or equal to

$\leq$ - Is less than or equal to

$\propto$ - Is proportional to

$\in$ - is in

$\sim$ - is similar to

$\approx$ - is approximately

$\gg$ - is much greater than

$\ll$ - is much less than

$\forall$ - For all

$\exists$ - there exists

| x | - Absolute value of x

$\sqrt{x}$ - square root of x

$\sqrt[n]{x}$ - n^{th} root of x

x^n - x raised to the power n (i.e. - x times itself n times)

$f'(a)$ - The derivative of a function f at a (read as 'f prime of a')

$\frac{\partial F}{\partial x}$ - Partial derivative of F with respect to the variable x

$\dot{F}$ - the time derivative of F (i.e. $\frac{\partial F}{\partial t}$)

$\ddot{F}$ - the second time derivative of F (i.e. $\frac{\partial^2 F}{\partial t^2}$)

$\sum_{i=0}^{n} \{x_i\}$ - the sum of the elements of the vector x for $i = 0$ to n

$\sum_{i} \{x_i\}$ - the sum of the elements of the vector x for all the elements i

$\int F(x)dx$ - Indefinite integral of F with respect to the variable x

$\int_a^b F(x)dx$ - Definite integral of F with respect to x from a to b

$\prod_{i=0}^{n} \{x_i\}$ - the products of the elements of x for each element from $i = 0$ to n (i.e. if $n = 2$, then $\prod_{i=0}^{2} \{x_i\} = x_0 * x_1 * x_2$)

∞ - Infinity