Use of Notations & Alphabets

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WHY ARE SYMBOLS AND NOTATIONS USED?

https://youtu.be/eVm063xmnow

Where do math symbols come from? - John David Walters

GREEK ALPHABET

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Αα	Ββ	Γγ	Δδ	Εε	Ζζ
ALPHA [a] *ἄλφα*	**BETA** [b] *βῆτα*	**GAMMA** [g] *γάμμα*	**DELTA** [d] *δέλτα*	**EPSILON** [e] *ἒ ψιλόν*	**ZETA** [dz] *ζῆτα*
Ηη	**Θθ**	**Ιι**	**Κκ**	**Λλ**	**Μμ**
ETA [ɛː] *ἦτα*	**THETA** [t^h] *θῆτα*	**IOTA** [i] *ἰῶτα*	**KAPPA** [k] *κάππα*	**LAMBDA** [l] *λάμβδα*	**MU** [m] *μῦ*
Νν	**Ξξ**	**Οο**	**Ππ**	**Ρρ**	**Σσς**
NU [n] *νῦ*	**XI** [ks] *ξεῖ*	**OMICRON** [o] *ὂ μικρόν*	**PI** [p] *πεῖ*	**RHO** [r] *ῥῶ*	**SIGMA** [s] *σῖγμα*
Ττ	**Υυ**	**Φφ**	**Χχ**	**Ψψ**	**Ωω**
TAU [t] *ταῦ*	**UPSILON** [ʉ] *ὗ ψιλόν*	**PHI** [p^h] *φεῖ*	**CHI** [k^h] *χεῖ*	**PSI** [ps] *ψεῖ*	**OMEGA** [ɔː] *ὦ μέγα*

Notation of operations

Math Operations	Symbols	Other Words	
Addition	+	**sum** Altogether all in all	together total total number add
Subtraction	−	**minus** greater than more than take away fewer than less than	How many more? How many left? How many less? subtract difference is left
Multiplication	× ●	**product** multiply multiplied by times	
Division	÷ /	**quotient** dividend divide divided by	each per average divide equally
Equal	=	the same equals the same as is equal to equivalent	

by Deborah Wahlstrom

Notations in geometry

$\angle$	Angle
$\angle ABC$	Angle ABC
$\overset{\frown}{AB}$	Arc AB
$m\overset{\frown}{AB}$	Measure of arc AB
$\overleftrightarrow{AB}$	Line AB
$\overrightarrow{AB}$	Ray AB
$\overline{AB}$	Line segment AB
AB	Length of line segment AB
$\cong$	Congruent
$^\circ$	Degree
$\parallel$	Parallel
$\perp$	Perpendicular
$\sim$	Similar
$\triangle$	Triangle

Notation of Statistics and Probability

Symbol	Symbol Name	Meaning / definition	Example
$P(A)$	probability function	probability of event A	$P(A) = 0.5$
$P(A \cap B)$	probability of events intersection	probability that of events A and B	$P(A \cap B) = 0.5$
$P(A \cup B)$	probability of events union	probability that of events A or B	$P(A \cup B) = 0.5$
$P(A \mid B)$	conditional probability function	probability of event A given event B occured	$P(A \mid B) = 0.3$
$f(x)$	probability density function (pdf)	$P(a \leq x \leq b) = \int f(x)\,dx$	
$F(x)$	cumulative distribution function (cdf)	$F(x) = P(X \leq x)$	
μ	population mean	mean of population values	$\mu = 10$

Bibliography

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