E MATHEMATICAL AND OTHER SPECIAL SIGNS WITHIN TITLES

TABLE OF THE MOST FREQUENT MATHEMATICAL AND OTHER SPECIAL SIGNS WITHIN TITLES AND ITS SOLVING IN FIELD 200 OR IN OTHER FIELDS

The beginning and the end of entry of mathematical and other special characters according to the LaTeX principles within the COBISS/Cataloguing module is marked with the "▫" character. Additionally, the beginning and the end of the entry according to the LaTeX principles in a mathematical environment should be marked by the $ character.

Meaning of the table cells:

Cell 1: the original form as it appears on the item
2: LaTeX phrase
3: solving the original form when the publication is in Slovenian
4: solving the original form when the publication is in English

Exponents, indexes, derivatives, fractions and roots

x^2	x^2	x [na] 2	x [sup] 2
x^{13}	x^{13}	x [na] 13	x [sup] 13
x^n	x^n	x [na] n	x [sup] n
x^{-7}	x^{-7}	x [na] -7	x [sup] -7
x^{-n}	x^{-n}	x [na] -n	x [sup] -n
$(x^2)^3$	(x^2)^3	(x [na] 2) [na] 3	(x [sup] 2) [sup] 3
x^{2^3}	x^{2^3}	x [na] (2 [na] 3)	x [sup] (2 [sup] 3)
a_k	a_k	a [spodaj] k	a [sub] k
a_{ki}	a_{ki}	a [spodaj] (ki)	a [sub] (ki)
A_i^j	A_i^j	(A [spodaj] i) [na] j	(A [sub] i) [sup] j
y'	y^{\prime}	y [črtica]	y [prime]
$\frac{števec}{imenovalec}$	\frac{numerator}{denominator}	števec [ulomljeno] imenovalec	numerator [over] denominator
$\frac{a}{b+c}$	\frac{a}{b+c}	a [ulomljeno] (b+c)	a [over] (b+c)
$\sqrt{izraz}$	\sqrt {phrase}	[kvadratni koren] izraz	[square root] phrase
$\sqrt[n]{izraz}$	\root [n] {phrase}	n [-ti koren] izraz	[root] n [of] phrase
$\sqrt{2}$	\sqrt 2	[kvadratni koren iz] 2	[square root] 2
$\sqrt{1+x}$	\sqrt {1+x}	[kvadratni koren iz] (1+x)	[square root] (1+x)
$\sqrt[3]{\frac{a}{b}}$	\root [3] {\frac{a}{b}}	3 [koren iz] a [ulomljeno] b	[root] 3 [of] a [over] b

Capital and small Greek letters

α	\alpha	[alfa]	[alpha]
β	\beta	[beta]	[beta]
γ	\gamma	[gama]	[gamma]
δ	\delta	[delta]	[delta]
ϵ	\epsilon	[epsilon]	[epsilon]
ζ	\zeta	[zeta]	[zeta]
η	\eta	[eta]	[eta]
θ	\theta	[theta]	[theta]
ι	\iota	[jota]	[iota]
κ	\kappa	[kapa]	[kappa]
λ	\lambda	[lambda]	[lambda]
μ	\mu	[mi]	[mu]
ν	\nu	[ni]	[nu]
ξ	\xi	[ksi]	[xi]
o	o	[omikron]	[o]
π	\pi	[pi]	[pi]
ρ	\rho	[ro]	[rho]
σ	\sigma	[sigma]	[sigma]
τ	\tau	[tau]	[tau]
υ	\upsilon	[ipsilon]	[upsilon]
ϕ	\phi	[fi]	[phi]
φ	\varphi	[fi]	[varphi]
χ	\chi	[hi]	[chi]
ψ	\psi	[psi]	[psi]
ω	\omega	[omega]	[omega]
Γ	\Gamma	[Gama]	[Gamma]
Δ	\Delta	[Delta]	[Delta]
Π	\Pi	[Pi]	[Pi]
Σ	\Sigma	[Sigma]	[Sigma]
Ω	\Omega	[Omega]	[Omega]

Signs

$\Re$	\Re	[realni del]	[real part]
$\Im$	\Im	[imaginarni del]	[imaginary part]
∂	\partial	[parcijalni odvod]	[partial derivative]
∞	\infty	[neskončno]	[infinity]
∇	\nabla	[nabla]	[nabla]
$\triangle$	\triangle	[trikotnik]	[triangle]
$\perp$	\bot	[pravokotno]	[orthogonal]
$\forall$	\forall	[za vsak]	[for all]
$\neg$	\neg	[negacija]	[negation]

Binary operations

$\pm$	\pm	[plus minus]	[plus minus]
$\mp$	\mp	[minus plus]	[minus plus]

$\cdot$	\cdot	[pika (krat)]	[times]
$\times$	\times	[krat (vektorski)]	[times]
$\div$	\div	[deljeno (s)]	[divided (by)]
$\cap$	\cap	[presek]	[cut]
$\cup$	\cup	[unija]	[union]
$\vee$	\or	[ali]	[or]
$\wedge$	\land	[in (hkrati)]	[and]
$\circ$	\circ	[kompozitum]	[compositum]
$*$	\ast	[zvezdica]	[ast]

Big operations

$\sum$	\sum	[vsota]	[sum]
$\prod$	\prod	[produkt]	[product]
$\int$	\int	[integral]	[integral]
$\oint$	\oint	[integral po sklenjeni krivulji]	[contour integral]

Mathematical accents

$\dot{x}$	\dot{x}	x [pika]	x [dot]
$\ddot{x}$	\ddot{x}	x [dve piki]	x [two dots]
$\vec{a}$	\vec{a}	[vektor] a	[vector] a
$\tilde{o}$	\tilde{o}	o [z vijugo]	o [tilde]
$\bar{x}$	\bar{x}	x [s črto]	x [bar]
$\underline{x}$	\underline{x}	[podčrtani] x	x [underlined]

Relations

$\subset$	\subset	[je podmnožica]	[subset]
$\in$	\in	[je element]	[belongs]
$\mid$	\mid	[navpično]	[vertical]
$\parallel$	\parallel	[paralelno]	[parallel]
$\equiv$	\equiv	[identično enako]	[equivalent]
$\sim$	\sim	[v relaciji]	[in relation]
$\simeq$	\simeq	[skladno]	[congruent]
$\doteq$	\doteq	[približno enako]	[approximately equal]

Relations of inequality

$\neq$	\ne	[ni enako]	[not equal]
$\notin$	\notin	[ni element]	[not element]

Arrows

$\Rightarrow$	\Rightarrow	[sledi]	[implies]
$\iff$	\iff	[natanko takrat]	[if and only if]
$\to$	\to	[v (na)]	[to]

Number sets

$\mathbb{N}$	\NN	[N]	[N]
$\mathbb{Z}$	\ZZ	[Z]	[Z]
$\mathbb{Q}$	\QQ	[Q]	[Q]
$\mathbb{R}$	\RR	[R]	[R]
$\mathbb{C}$	\CC	[C]	[C]

This table is a result of the cooperation between IZUM and the Mathematical Library of the Faculty of Mathematics and Physics of The University of Ljubljana. For assistance in solving mathematical and other symbols in the form recorded in field 200, and according to LaTeX principles in fields 330, 539 and 610, consult employees of the above mentioned library.

SEARCHING MATHEMATICAL AND OTHER SPECIAL SIGNS[1]

While searching by phrases, signs < > [ ] = are not used.

200	0␣	**a**x [sub] i=a(i+1) [sup] 2
539	0␣	**a**▫$x_i=a(i+1)^2$▫
		(On the item: $x_i = a(i+1)^2$)

- search by phrases (field 200): TI="x sub ia(i+1) sup 2"
- search by phrases (field 539): TI="$x_ia(i+1)^2$"

While searching by words, signs/punctuation marks, designated for separating words within the search query, are not used: , . : ; ? ! / \ ( ) { } + – * & % $ #

Also while searching by phrase, the above mentioned signs < > [ ] = are not used.

200	0␣	**a**x [sub] i=a(i+1) [sup] 2
539	0␣	**a**▫$x_i=a(i+1)^2$▫
		(On the item: $x_i = a(i+1)^2$)

- search by words (field 200): x (W) sub (W) ia (W) i (W) 1 (W) sup (W) 2
- search by words (field 539): x_ia (W) i (W) 1 (W) ^2

While searching by phrases and words, by fields 330/539/610 LaTeX signs for index (_) and exponents (^) should be entered if they are present in the search query. The already mentioned signs are not used as word separators, and they are not ignored while indexing a database.

539	0␣	**a**▫x^3▫
		(On the item: x^3)

[1] If a reserved sign (?, :, (,), =, *, /, %, "), or a reserved word (AND, OR, NOT, FROM, STEPS, E1, E2, E3, etc., R1, R2, R3, etc., S1, S2, S3, etc.) is used in the search query, the reserved query or only the reserved sign or a word should be entered in quotation marks.

- search by phrases (field 539): TI="x^3"
- search by words (field 539): x^3

610	0␣	**a**▫$(x+y)^3$▫ *(On the item: $(x+y)^3$)*

- search by phrases (field 610): DU="$(x+y)^3$"
- search by words (field 610): x (W) y (W) ^3

539	0␣	**a**▫$3^{(x+y)}$▫ *(On the item: $3^{(x+y)}$)*

- search by phrases (field 539): TI="$3^{(x+y)}$"
- search by words (field 539): 3^ (W) x (W) y

610	1␣	**a**▫$(x_i)^3$▫ *(On the item: $(x_i)^3$)*

- search by phrases (field 610): DU="$(x_i)^3$"
- search by words (field 610): x_i (W) ^3

EXAMPLES

1.

200	0␣	**a**Special and spurious solutions of x [dot] (t)= - [alpha] f(x(t-1))
539	0␣	**a**Special and spurious solutions of ▫$\dot{x}(t)= -\alpha f(x(t-1))$▫ *(On the item: Special and spurious solutions of $\dot{x}(t) = -\alpha f(x(t-1))$)*

- search by phrases (field 200): TI="special and spurious solutions of x dot (t) - alpha f(x(t-1))"
- search by phrases (field 539): TI="special and spurious solutions of $\dot{x}(t)-\alpha f(x(t-1))$"
- search by words (field 200): x (W) dot (W) t (W) alpha (W) f (W) x (W) t (W) 1
- search by words (field 539): dot (W) x (W) t (W) alpha (W) f (W) x (W) t (W) 1

2.

200	1␣	**a**≠The ≠Selberg trace formula for PSL [sub] 2 ([R]) [sup] n
539	0␣	**a**≠The ≠Selberg trace formula for ▫$PSL_2(\RR)^n$▫ *(On the item: The Selberg trace formula for $PSL_2(\mathbb{R})^n$)*

- search by phrases (field 200): TI="the selberg trace formula for psl sub 2 (r) sup n"
- search by phrases (field 539): TI="the selberg trace formula for $psl_2(\rr)^n$"
- search by words (field 200): psl (W) sub (W) 2 (W) r (W) sup (W) n
- search by words (field 539): psl_2 (W) rr (W) ^n

3.

200	0␣	**a**Structure of the level one standard modules for the affine Lie algebras B [sub] l [sup] (1), F [sub] 4 [sup] (1) and G [sub] 2 [sup] (1)
539	0␣	**a**Structure of the level one standard modules for the affine Lie algebras ▫$B_ \ell^{(1)}$▫, ▫$F_4^{(1)}$▫ and ▫$G_2^{(1)}$▫ *(On the item: Structure of the level one standard modules for the affine Lie algebras $B_\ell^{(1)}$, $F_4^{(1)}$ and $G_2^{(1)}$)*

- search by phrases (field 200): TI="*b sub l sup (1), f sub 4 sup (1) and g sub 2 sup (1)"
- search by phrases (field 539): TI="*$b_\ell^{(1)}$, $f_4^{(1)}$ and $g_2^{(1)}$"
- search by words (field 200): b (W) sub (W) l (W) sup (W) 1 (W) f (W) sub (W) 4 (W) sup (W) 1 (1W) g (W) sub (W) 2 (W) sup (W) 1
- search by words (field 539): b_ (W) ell^ (W) 1 (W) f_4^ (W) 1 (1W) g_2^ (W) 1

4.

610	0␣	**a**algebra ▫$Z_{L(\lambda)}$▫**a**▫$\widetilde{F} _4$▫-modules *(On the item: algebra $Z_{L(\lambda)}$; $\widetilde{F}_4$-modules)*

- search by phrases (field 610): DU="algebra $z_{l(\lambda)}$"
- search by phrases (field 610): DU=$\widetilde{f}_4$-modules
- search by words (field 610): algebra (W) z_ (W) l (W) lambda
- search by words (field 610): widetilde (W) f (W) _4 (W) modules

5.

330	␣␣	**z**eng **a**We prove that every finite 2-dimensional cell complex ▫K▫ with cyclic second cohomology ▫$H^2(K)$▫ embeds in ▫$\RR^4$▫ tamely. *(On the item: We prove that every finite 2-dimensional cell complex K with cyclic second cohomology $H^2(K)$ embeds in $\mathbb{R}^4$ tamely.)*

- search by words (field 330): rr^4 (W) tamely
- search by words (field 330): cell (W) complex (W) k (4W) h^2 (W) k

