

JavE - Mathematical Expressions Editor

This editor is a new feature of JavE. It is by no means finished: There are some bugs and the syntax is not complete.

However I decided to add it to JavE 2.0 for testing.

For questions, bug reports and any kind of comments feel free to post to markus@jave.de

Syntax

Operation	Syntax	Example	
addition	a+b	a+b	a + b
subtraction	a-b	a-b	a - b
multiplication	a*b	a*b	a * b
division	a/b	$x/\{x+1\}$	$\frac{x}{x + 1}$
	a!	3! =2	3! = 2
	a^b	x^2	x^2
	a_b	x_i	x_i
invisible brackets	{a}	$x/\{x+1\}$	$\frac{x}{x + 1}$
round brackets	(a)	3*(x+y)	3 * (x + y)
pointed brackets	<a>	<x+y>	<x + y>
ceil	ceil(a)	ceil(x*pi)	$\lceil \quad \quad \rceil$

			$ \quad x \quad * \quad \quad \quad $
floor	floor(a)	floor(x*pi)	$ \quad _ \quad x \quad * \quad _ \quad $
pi	pi	$4 * \pi * r^2$	$4 \quad * \quad _ \quad * \quad r^2$
infinity	INFINITY	n->INFINITY	n->oo
binomial	binomial(a;b)	binomial(49;6)	$\begin{array}{c} / \quad 49 \quad \backslash \\ \quad \quad \quad \\ \backslash \quad 6 \quad / \end{array}$
(square) root	sqrt(a)	sqrt(pi)	$_ \quad \quad _$ $\backslash \quad \quad _$
	sqrt(b;a)	sqrt(3;pi)	$_ \quad 3 \quad \quad _$ $\backslash \quad \quad _$
sum	sum(a)	sum(x_i)	$\begin{array}{c} \text{---} \\ \backslash \\ > \quad x \\ / \quad \quad i \\ \text{---} \end{array}$
	sum(b;a)	sum(i;x_i)	$\begin{array}{c} \text{---} \\ \backslash \\ > \quad x \\ / \quad \quad i \\ \text{---} \\ i \end{array}$
	sum(b=c..d;a)	sum(i=2..y;x_i)	$\begin{array}{c} y \\ \text{---} \\ \backslash \\ > \quad x \\ / \quad \quad i \\ \text{---} \\ i = 2 \end{array}$
product	prod(a)	prod(x_i)	$\begin{array}{c} \text{---} \\ \quad \\ \quad \quad x \\ \quad \quad i \end{array}$
	prod(a)	prod(i;x_i)	$\begin{array}{c} \text{---} \\ \quad \\ \quad \quad x \\ \quad \quad i \\ i \end{array}$

	prod(a)	prod(i=0..y;x_i)	$\begin{array}{ccc} & & y \\ \hline & & \\ & & x \\ & & i \\ i & = & 0 \end{array}$
logarithm	log(b;a)	log(3;x)	$\log_3 x$
vector/arrow	vec(a)	vec(x)	\overrightarrow{x}
overline	overline(a)	overline(x)	\overline{x}
underline	underline(a)	underline(x)	\underline{x}
text	"text"	"pi is not INFINITY!"	pi is not INFINITY!
greek letters	alpha Alpha beta ... Omega	alpha	α
		Sigma	Σ
		varrho	ϱ

- Equations, implications: $= > < \leq \geq \diamond$ or $><$ or $! \Rightarrow \rightarrow$
- Brackets: $[a]$ $|a|$
- Complex operators: $\lim(n \rightarrow 0; x)$ $\text{matrix}(\text{rows}, \text{cols}, x; y; \dots)$

More Complex Examples

$f_{\{1,2,3\}}$ (Pi)=binomial(1,2,3;4)/PI	$f_{1,2,3} \frac{\frac{1}{11} \frac{1}{1}}{\frac{1}{11} \frac{1}{1}} = \frac{\frac{1}{1,2,3} \frac{1}{4} \frac{1}{1}}{\frac{1}{11}}$
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