Math Symbols Name

Basic Math Symbols Name and Examples

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
≠	not equal sign	inequality	10 ≠ 6
=	equal sign	equality	3 = 1 + 2
<	strict inequality	less than	7 < 10
>	strict inequality	greater than	6 > 2
≤	inequality	less than or equal to	x ≤ y, means, y = x or y > x, but not vice-versa.
≥	inequality	greater than or equal to	a ≥ b, means, a = b or a > b, but vice-versa does not hold true.
[ ]	brackets	calculate expression inside first	[2×5] + 7 = 10 + 7 = 17
( )	parentheses	calculate expression inside first	3 × (3 + 7) = 3 × 10 = 30

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
-	minus sign	subtraction	5 - 2 = 3
+	plus sign	addition	4 + 5 = 9
∓	minus – plus	both minus and plus operations	1 ∓ 4 = -3 and 5
±	plus – minus	both plus and minus operations	5 ± 3 = 8 and 2
×	times sign	multiplication	4 × 3 = 12
*	asterisk	multiplication	2 * 3 = 6
÷	division sign / obelus	division	15 ÷ 5 = 3
·	multiplication dot	multiplication	2 · 3 = 6
–	horizontal line	division / fraction	8/2 = 4
/	division slash	division	6 / 2 = 3
mod	modulo	remainder calculation	7 mod 3 = 1

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
a^b	power	exponent	$2^4 = 16$
.	period	decimal point, decimal separator	4.36 = 4 +(36/100)
√a	square root	$\sqrt{a} \cdot \sqrt{a} = a$	$\sqrt{9} = \pm 3$
a^b	caret	exponent	2 ^ 3 = 8
$\sqrt[4]{a}$	fourth root	$\sqrt[4]{a} \cdot \sqrt[4]{a} \cdot \sqrt[4]{a} \cdot \sqrt[4]{a} = a$	$\sqrt[4]{16} = \pm 2$
$\sqrt[3]{a}$	cube root	$\sqrt[3]{a} \cdot \sqrt[3]{a} \cdot \sqrt[3]{a} = a$	$\sqrt[3]{343} = 7$
%	percent	1% = 1/100	10% × 30 = 3
$\sqrt[n]{a}$	n-th root (radical)	$\sqrt[n]{a} \cdot \sqrt[n]{a} \cdots$ n times = a	for n=3, $\sqrt[n]{8} = 2$
ppm	per-million	1 ppm = 1/1000000	10ppm × 30 = 0.0003
‰	per-mille	1‰ = 1/1000 = 0.1%	10‰ × 30 = 0.3
ppt	per-trillion	1ppt = 10^{-12}	10ppt × 30 = 3×10^{-10}

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
ppb	per-billion	1 ppb = 1/1000000000	10 ppb × 30 = 3×10^{-7}

Greek Letter Mathematics Symbols Name

Upper Case	Lower Case	Greek Letter Name	English Equivalent	Pronunciation
A	α	Alpha	a	al-fa
B	β	Beta	b	be-ta
Γ	γ	Gamma	g	ga-ma
Δ	δ	Delta	d	del-ta
E	ε	Epsilon	e	ep-si-lon
Z	ζ	Zeta	z	Ze-ta
H	η	Eta	h	eh-ta
Θ	θ	Theta	th	te-ta
I	ι	Iota	i	io-ta
K	κ	Kappa	k	ka-pa
Λ	λ	Lambda	l	lam-da
M	μ	Mu	m	m-yoo
M	μ	Mu	m	m-yoo
N	ν	Nu	n	noo
N	ν	Nu	n	noo
Ξ	ξ	Xi	x	x-ee
O	ο	Omicron	o	o-mee-c-ron
Π	π	Pi	p	pa-yee
P	ρ	Rho	r	row
Σ	σ	Sigma	s	sig-ma
T	τ	Tau	t	ta-oo
Y	υ	Upsilon	u	oo-psi-lon
Φ	φ	Phi	ph	f-ee
X	χ	Chi	ch	kh-ee
Ψ	ψ	Psi	ps	p-see
Ω	ω	Omega	o	o-me-ga

Common Numeral Symbols

Name	European	Roman	Arabic	Hebrew
zero	0	n/a	٠	n/a
one	1	I	١	א
two	2	II	٢	ב
three	3	III	٣	ג
four	4	IV	٤	ד
five	5	V	٥	ה
six	6	VI	٦	ו
seven	7	VII	٧	ז
eight	8	VIII	٨	ח
nine	9	IX	٩	ט
ten	10	X	١٠	י

Name	European	Roman	Arabic	Hebrew
eleven	11	XI	١١	יא
twelve	12	XII	١٢	יב
thirteen	13	XIII	١٣	יג
fourteen	14	XIV	١٤	יד
fifteen	15	XV	١٥	טו
sixteen	16	XVI	١٦	טז
seventeen	17	XVII	١٧	יז
eighteen	18	XVIII	١٨	יח
nineteen	19	XIX	١٩	יט
twenty	20	XX	٢٠	כ
thirty	30	XXX	٣٠	ל
forty	40	XL	٤٠	מ

Name	European	Roman	Arabic	Hebrew
fifty	50	L	٥٠	נ
sixty	60	LX	٦٠	ס
seventy	70	LXX	٧٠	ע
eighty	80	LXXX	٨٠	פ
ninety	90	XC	٩٠	צ
one hundred	100	C	١٠٠	ק

Mathematical Logic Symbols

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
^	caret / circumflex	and	x ^ y
·	and	and	x · y
+	plus	or	x + y

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
&	ampersand	and	x & y
|	vertical line	or	x | y
v	reversed caret	or	x v y
$\bar{x}$	bar	not – negation	$\bar{x}$
x’	single-quote	not – negation	x’
!	Exclamation mark	not – negation	! x
¬	not	not – negation	¬ x
~	tilde	negation	~ x
⊕	circled plus / oplus	exclusive or – xor	x ⊕ y
⇔	equivalent	if and only if (iff)	p: this year has 366 days q: this is a leap year p ⇔ q
⇒	implies	Implication	p: a number is a multiple of 4

Symbol	Symbol Name in Maths	Math Symbols Meaning	Example
			q: the number is even p ⇒ q
∈	Belong to/is an element of	Set membership	A = {1, 2, 3} 2 ∈ A
∉	Not element of	Negation of set membership	A={1, 2, 3} 0 ∉ A
∀	for all	Universal Quantifier	2n is even ∀ n ∈ **N** where **N** is a set of Natural Numbers
↔	equivalent	if and only if (iff)	p: x is an even number q: x is divisible by 2 p ↔ q
∄	there does not exist	Negation of existential quantifier	b is not divisible by a, then ∄ n ∈ **N** such that b = na
∃	there exists	Existential quantifier	b is divisible by a, then ∃ n ∈ **N** such that b = na
∵	because / since	Because shorthand	a = b, b = c ⇒ a = c (∵ a = b)
∴	therefore	Therefore shorthand (Logical consequence)	x + 6 = 10 ∴ x = 4