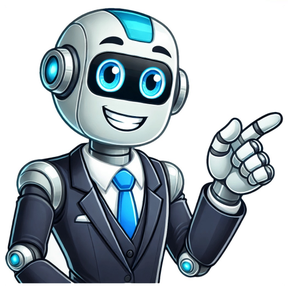
Click to verify



Mathematical symbol are shapes or combination of shapes used to represent various mathematical operations, function ,and relations. They are essential for writing and communicating mathematical concepts. the most important mathematics symbols used in equations, formulas, and calculations. Our guide covers symbols for algebra, geometry, calculus, and more to help you master math concepts and improve problem-solving skills.These symbols extend basic operations and help us express more complex ideas in areas like algebra, calculus, and number theory. These symbols form the foundation of math operations, used in everything from simple calculations to advanced equations. Multiplication is a faster way to add the same number multiple times. Subtraction is the reverse of addition. These symbols help us express complex ideas in a simple way. These symbols form the foundation of math operations, used in everything from simple calculations to advanced equations SYMBOL NAME + Addition Subtraction or * Multiplication or / Division = Equal Not equal SYMBOL NAME x,y,z Variable a,b,c Constant ^ Exponent Root |x| Absolute SYMBOL NAME Angle Right Angle Parallel Perpendicular Congruent SYMBOL NAME Dxy Derivative Integral lim Limit Infinity SYMBOL NAME % Percentage 1/2 Fraction Pi Infinity Mathematical symbols give us the tools to express complex concepts and relationships concisely and universally. They break down language barriers and allow mathematicians from all over the world to collaborate and understand each other, regardless of their native language.From basic arithmetic to advanced calculus, mathematical symbols make math more efficient and powerful. The language and vocabulary of mathematics contain a large amount of symbols some being more technical than others. Like letters in the alphabet, they can be used to form words, phrases and sentences that would constitute a larger part of the mathematical lexicon. \[\begin{gather*}x \longrightarrow x+1 \longrightarrow (x+1)^2 \longrightarrow (x+1)^2 \ge 0 \\ \longrightarrow \forall x \in \mathbb{R} [(x+1)^2 \ge 0] \end{gather*} \] A math symbol can be used for different purposes from one mathematical subfield to another (e.g., $\sim$ as logical negation and similarity of triangle), just as multiple symbols can be used to delineate the same concept or relation (e.g., $\times$ and $\cdot$ in multiplication).A basic understanding about mathematical terminology is essential to a solid foundation in higher mathematics. To that end, the following is a compilation of some of the most well-adapted, commonly-used symbols in mathematics.Moreover, these symbols are further categorized by their functioninto tables. More comprehensive lists of symbols as categorized by subjectand type can be also found in the relevant pages below (or in the navigational panel).Prefer the PDF version instead?Get the complete, comprehensive list of mathematical symbols in eBook form along with each symbols usage and LaTeX code.ConstantsIn mathematics, constants are symbols that are used to refer to non-varying objects. These can include key numbers, key mathematical sets, key mathematical infinities and other key mathematical objects (such as the identity matrix I).Mathematical constants often take form of an alphabet letter or a derivative of it. In some occasions, a constant might be regarded as a variable in the larger context. The following tables feature some of the most commonly-used constants, along with their name, meaning and usage.Key Mathematical NumbersSymbol NameExplanationExample0 (Zero)Additive identity of common numbers$3 + 0 =3$$1$ (One)Multiplicative identity of common numbers$5 \times 1 = 5$$\sqrt{2}$ (Square root of 2)Positive number whose square is 2. Approximately 1.41421.$(\sqrt{2} + 1)^2 = 3 + 2\sqrt{2}$$e$ (Eulers number)Base of the natural logarithm. Limit of the sequence $(1+\frac{1}{n})^n$. Approximately 2.71828.$\ln (e^2) = 2 $$\pi$ (Pi, Archimedes constant)Ratio of a circles circumference to its diameter. Half-circumference of a unit circle. Approximately 3.141596.$\dfrac{\pi^2}{6} = \dfrac{1}{1^2} + \dfrac{1}{2^2} + \cdots$$\varphi$ (Phi, golden ratio)Ratio between a larger number a and a smaller number b when $\frac{a+b}{a} = \frac{a}{b}$. Positive solution to the equation $x^2-x-1 = 0$. $\varphi = \dfrac{1+\sqrt{5}}{2} \approx 1.61803$$i$ (Imaginary unit)The principal root of -1. Foundational component of a complex number.$(1+i)^2 = 2i$Key Mathematical SetsFor a more comprehensive list, see key mathematical sets in algebra.Symbol NameExplanationExample$\varnothing$ (Empty set)Set with no element$|\varnothing| = 0$$\mathbb{N}$ (N)Set of natural numbers$\forall x, y \in \mathbb{N}$,$x+y \in \mathbb{N}$$\mathbb{Z}$ (Z)Set of integers (Z stands for zahlen, number in German)$ \mathbb{N} \subseteq \mathbb{Z}$$\mathbb{Z}_+$ (Z-plus)Set of positive integers$3 \in \mathbb{Z}_+$$\mathbb{Q}$ (Q)Set of rational numbers (Q stands for quotient)$\sqrt{2} otin \mathbb{Q}$$\mathbb{R}$ (R)Set of real numbers$\forall x \in \mathbb{R}, x^2 \ge 0$$\mathbb{R}_+$ (R-plus)Set of positive real numbers$\forall x,y \in \mathbb{R}_+$, $xy \in \mathbb{R}_+$$\mathbb{C}$ (C)Set of complex numbers$\exists z \in \mathbb{C}\, (z^2 + 1 =0)$$\mathbb{Z}_n$ (Z-n)Set of integers modulo nIn the world of $\mathbb{Z}_2$, $1+1=0$.$\mathbb{R}^3$ (R-three)Three-dimensional Euclidean spaces$(5, 1, 2) \in \mathbb{R}^3$Key Mathematical InfinitiesIn mathematics, many different types of infinity exist. These include the purely notational use of the lemniscate symbol (∞), and the use of the following symbols in the context of cardinal/ordinal infinities:Symbol NameExplanationExample$\aleph_0$ (Aleph-naught)Cardinality of the set of natural numbers$\aleph_0 + 5 = \aleph_0$$\mathfrak{c}$ (Continuum)Cardinality of the set of real numbers$\mathfrak{c}=2^{\aleph_0}$$\omega$ (Omega)Smallest infinite ordinal number$\forall n \in \mathbb{N}, n < \omega$For a more comprehensive list, see cardinality-related symbols.Other Key Mathematical ObjectsSymbol NameExplanationExample$\mathbf{0}$ (Zero)Zero vector of a vector space$\forall \mathbb{v} \in V$,$\mathbf{v} + \mathbf{0} = \mathbf{v}$$e$ (E)Identity element of a group$e \circ e = e$$I$ (I)Identity matrix$AI = IA = A$$C$ (C)Constant of integration$\displaystyle \int 1 \, \mathrm{d}x = $x + C$$\top$ (Tautology)A sentence in formal logic which is unconditionally trueFor each proposition P, $P \land \top \equiv P$.$\bot$ (Contradiction)A sentence in formal logic which is unconditionally falseFor each proposition P, $P \land \lnot P \equiv \bot.$$Z$ (Z)Standard normal distribution$Z \sim N(0,1)$VariablesA mathematical variable is a symbol that functions as a placeholder for varying expressions or quantities. The same variable can be used on a repeated basis to refer to the same thing or quantified to form sentences that have a more definite meaning: \begin{gather*}x, y \longrightarrow x \longrightarrow \exists y \in \mathbb{R}\, (x + e^x = y) \\ \longrightarrow \forall x \in \mathbb{R} \, \exists y \in \mathbb{R}\, (x + e^x = y) \\ \longrightarrow \forall x \in \mathbb{R} \, \exists y \in \mathbb{R}\, (x + e^x = y) \end{gather*} In some cases, variables can be thought of as constants in narrower contexts (e.g., as parameters), while in other cases, variables are used in conjunction with subscripts to make up for the lack of letters (e.g., x_3).While variables in mathematics are often used to represent numbers, they can also be used to represent other objects such as vectors, functions and matrices. The following tables document some of the most common conventions for variables along with the context where they are adopted and used.Variables for NumbersSymbol(s)Used ForExamplem, n, p, qIntegers and natural numbersIf mn is odd, then both m and n are odd.a, b, cCoefficients of functions and equationsA line of the form $ax+by=0$ passes through the origin.x, y, zUnknowns in functions and equationsIf $2x + 5= 3$, then $x=-1$.ΔDiscriminant$\Delta = b^2 4ac$ for quadratic polynomialsi, j, kIndex variables in summations and products$\sum _{i=1}^{10} i = 55$$t$TimeAt $t=5$, the velocity is $v(5)=32$.zComplex numbers$z \overline{z} = |z|^2$Variables in GeometryFor more symbols in geometry and trigonometry, see geometry and trigonometry symbols.Symbol(s)Used ForExample P, Q, R, S Vertices $\overline{PQ} \perp \overline{QR}$ $ \ell$Lines $\ell_1 \parallel \ell_2$ $\alpha, \beta, \gamma, \theta$ Angles $\alpha + \beta + \theta = 180^{\circ}$Variables in CalculusFor a more comprehensive list, see constants and variables in calculus.Symbol(s)Used ForExample $f(x), g(x,y),h(z)$Functions $f(2) = g(3,1) + 5$ a_n, b_n, c_nSequences $\displaystyle a_n = \frac{3}{n+2} $ $h, \Delta x$Limiting variables in derivatives $\displaystyle \lim_{h \to 0} \frac{e^{h}-e^{0}}{h} = 1$ δ, εSmall quantities in proofs involving limits For all $\varepsilon >0$, there is a $\delta >0$ such that $|x| 3 {\displaystyle x>3} ".2.Sometimes used for reversing the operands of {\displaystyle \in } ; that is, S x {\displaystyle Si x} has the same meaning as x S {\displaystyle x\in S} . See in Set theory.Abbreviation of "is proportional to".!1.Factorial: if n is a positive integer, n! is the product of the first n positive integers, and is read as "n factorial".2.Double factorial: if n is a positive integer, n!! is the product of all positive integers up to n with the same parity as n; that is, if n is odd, the product of all odd integers from 1 up to and including n, and if n is even, the product of all even integers, up to and including n. It is read as "the double factorial of n".3.Subfactorial: if n is a positive integer, !n is the number of derangements of a set of n elements, and is read as "the subfactorial of n".*Many different uses in mathematics; see Asterisk Mathematics.|1.Divisibility: if m and n are two integers, m n {\displaystyle m\mid n} means that m divides n evenly.2.In set-builder notation, it is used as a separator meaning "such that"; see { | }.3.Restriction of a function: if f is a function, and S is a subset of its domain, then f | S {\displaystyle f|_{S}} is the function with S as a domain that equals f on S.4.Conditional probability: P (X E) {\displaystyle P(X\mid E)} denotes the probability of X given that the event E occurs. Also denoted P (X / E) {\displaystyle P(X/E)} ; see "/".5.For several uses as brackets (in pairs or with and) see Other brackets.Non-divisibility: n m {\displaystyle n\nmid m} means that n is not a divisor of m.1.Denotes parallelism in elementary geometry: if PQ and RS are two lines, P Q R S {\displaystyle PQ\parallel RS} means that they are parallel.2.Parallel the harmonic sum an arithmetical operation used in electrical engineering for summing two impedances wired in parallel (e.g. parallel resistors) or two admittances wired in series (e.g. series capacitors): x y = 1 1 x + 1 y = x y x + y . {\displaystyle \ x\parallel y={\frac {1}{\ {\frac {\ 1\ }{x}}+{\frac {\ 1\ }{y}}\ }}={\frac {x\,y}{\,x+y\ }}~.} 3.Used in pairs as brackets, denotes a norm; see |||.4.Concatenation: Typically used in computer science, x | | y {\displaystyle x\mathbin {\vert \vert } y} is said to represent the value resulting from appending the digits of y to the end of x.5. D KL (P Q) {\displaystyle {\displaystyle D_{\text{KL}}(P\parallel Q)} } , denotes a statistical distance or measure of how one probability distribution P is different from a second, reference probability distribution Q.Sometimes used for denoting that two lines are not parallel; for example, P Q R S {\displaystyle PQot \parallel RS} . {\displaystyle \perp } 1.Denotes perpendicularity and orthogonality. For example, if A, B, C are three points in a Euclidean space, then A B A C {\displaystyle AB\perp AC} means that the line segments AB and AC are perpendicular, and form a right angle.2.For the similar symbol, see {\displaystyle \bot } .Hadamard product of power series: if S = i = 0 s i x i {\displaystyle \textstyle S=\sum _{i=0}^{\infty }s_{i}x^{i}} and T = i = 0 t i x i {\displaystyle \textstyle T=\sum _{i=0}^{\infty }t_{i}x^{i}} , then S T = i = 0 s i t i x i {\displaystyle \textstyle S\odot T=\sum _{i=0}^{\infty }s_{i}t_{i}x^{i}} . Possibly, {\displaystyle \odot } is also used instead of for the Hadamard product of matrices.[citation needed]The Tate-Shafarevich group of an abelian variety.Language of mathematicsMathematical notationNotation in probability and statisticsPhysical constantsList of logic symbolsList of mathematical constantsTable of mathematical symbols by introduction dateBlackboard boldGreek letters used in mathematics, science, and engineeringLatin letters used in mathematics, science, and engineeringList of common physics notationsList of letters used in mathematics, science, and engineeringList of mathematical abbreviationsList of typographical symbols and punctuation marksISO 31-11 (Mathematical signs and symbols for use in physical sciences and technology)List of APL functionsUnicode blockMathematical Alphanumeric Symbols (Unicode block)List of Unicode charactersLetterlike SymbolsMathematical operators and symbols in UnicodeMiscellaneous Mathematical Symbols: A, B, TechnicalArrow (symbol) and Miscellaneous Symbols and ArrowsNumber FormsGeometric Shapes^ ISO 80000-2, Section 9 "Operations", 2-9.6^ Statistics and Data Analysis: From Elementary to Intermediate. 2000. ISBN978-0-13-744426-7.^ The LaTeX equivalent to both Unicode symbols and is \circ. The Unicode symbol that has the same size as \circ depends on the browser and its implementation. In some cases is so small that it can be confused with an interpoint, and looks similar as \circ. In other cases, is too large for denoting a binary operation, and it is that looks like \circ. As LaTeX is commonly considered as the standard for mathematical typography, and it does not distinguish these two Unicode symbols, they are considered here as having the same mathematical meaning.^ Rutherford, D. E. (1965). Vector Methods. University Mathematical Texts. Oliver and Boyd Ltd., Edinburgh,Jeff Miller: Earliest Uses of Various Mathematical SymbolsNumericana: Scientific Symbols and IconsGIF and PNG Images for Math SymbolsMathematical Symbols in UnicodeDetexify: LaTeX Handwriting Recognition ToolSome Unicode charts of mathematical operators and symbols:Index of Unicode symbolsRange 2100214F: Unicode Letterlike SymbolsRange 219021FF: Unicode ArrowsRange 220022FF: Unicode Mathematical OperatorsRange 27C027EF: Unicode Miscellaneous Mathematical SymbolsARange 298029FF: Unicode Miscellaneous Mathematical SymbolsBRange 2A002AFF: Unicode Supplementary Mathematical OperatorsSome Unicode cross-references:Short list of commonly used LaTeX symbols and Comprehensive LaTeX Symbol ListMathML Characters - sorts out Unicode, HTML and MathML/TeX names on one pageUnicode values and MathML namesUnicode values and Postscript names from the source code for GhostscriptRetrieved from " Share copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Math symbols are concise marks, signs, or notations representing mathematical operations, quantities, relations, and functions. These symbols help to represent mathematical concepts and equations concisely. Math symbols turn a lengthy explanation into a quick, easy calculation, helping you easily find the answer. Example: Imagine youre planning to find the area of a garden. Instead of writing length times width every time, math symbols let you simply jot down l w. So, if your garden is 10 meters long and 4 meters wide, instead of saying ten meters multiplied by four meters, you can quickly see that 10 4 = 40 square meters. Symbols vary across different areas of mathematics, enabling precise communication of mathematical concepts and abstract ideas. Arithmetic is a fundamental branch of mathematics focused on numbers and their relationships. It encompasses basic operations like addition, subtraction, multiplication, and division, which are integral to our daily activities. SymbolsMath Symbol NamesMeaningExamples$+$Plus signAddition$1 + 2$$-$Minus signSubtraction$3 2$$\times$Times signMultiplication$5 \times 8$$\div$Division sign (obelus)Division$9 \div 3$ More Worksheets The mathematics vocabulary is rich in a wide variety of symbols. Compiling all math symbols here is not possible, but the table below shows the list of math symbols that are commonly used, their names, definitions, and examples. SymbolsMeaningExamples$=$Equal to sign (Is equal to)$1 + 2 = 3$$eq$Not equal to$5 + 4 eq 2$$\pm$Both plus and minus$3(x \pm y) = 3x \pm 3y$$Sometimes used to indicate a range3 ± 1 means numbers from 2 to 4.$\mp$Both minus and plus$-\;2(a \mp b)= =\;2a \mp 2b$$\equiv$Identical to$(a + b)^{2} a^{2} + 2ab + b^{2}$$\approx$Almost equal to (approximately equal to)$\pi \approx 3.14$$eq$Not equal to$5 + 4 eq 2$$.$Multiplication dot$(5).(4) = 20$$/$Division slash$8 \div 2 = 4$$\lt$Strictly less than$5 \lt 10$$\gt$Strictly greater than$10 \gt 5$$\le$Less than or equal to$x \le 3$$\ge$Greater than or equal to$x \ge 3$$\ll$Much less than$0.001 \ll 1,000,000$$\gg$Much greater than$1000 gg y$$\%$Percentage$\frac{50}{100} = 50\%$$.$Period, decimal point$0.75$$\overline{}$Vinculum (the line separating the numerator & denominator)$\frac{1}{2}$$\propto$Proportional to$x \propto y$$\ln$Natural logarithm (log to the base e)$\ln 1 = \log_{e} 1 = 0$$\sqrt{}$Square root$\sqrt{4} = 2$$\sqrt[3]{}$Cube root$\sqrt{27} = 3$$\sqrt[n]{}$nth root$\sqrt{32} = 2$$\left(\right)$Parentheses (Round brackets)$(a + b)^{2}$$\left[\right]$Square brackets (brackets)$\left[a-(b+3)\right]^{2}$$\left\{ \right\}$Curly brackets (Braces)$\left\{[a-(b+3)]^{2}\right\}^{3}$$\in$Belongs to$x \in A$$\notin$Does not belong to$x otin A$$\therefore$Therefore$\therefore x = 1$$\because$Because$b = 2 \because b = a$ and $a = 2$$\infty$Infinity$x \rightarrow \infty$$\Sigma$Sigma (summation of all values in the given range)$^{3}\Sigma_{i=1}\; i = 1 + 2 + 3 = 6$ Geometry is a branch of mathematics that deals with the properties and relationships of points, lines, angles, surfaces, and solids. Understanding concepts such as length, width, area, volume, and perimeter is essential for solving geometric problems. Symbols often represent specific terms in geometry to facilitate easier communication and problem-solving. These symbols are shorthand for complex geometric terms, making calculations and explanations more efficient. In daily life, these geometric symbols are ubiquitous, helping to quantify and describe the world around us in terms of shape, size, and position. The table below lists the most commonly used geometric symbols, accompanied by examples to illustrate their application. SymbolsMeaningExamples$\angle$angle$XYZ$$\measuredangle$measured angle$\measuredangle\;LMN = 45^{\circ}$$\triangle$triangle$\triangle\;DEF$$\cong$Congruent to$\triangle\; PQR \cong \triangle \;ABC$$\sim$Similar to$\triangle \; PQR \sim \triangle \;ABC$$\perp$is perpendicular to$CD \perp XY$$$right angle$\;A$$\parallel$is parallel to$AB \parallel CD$$\circ$Degree$50^{\circ}$(x, y)Ordered pair (represents coordinates of a point)(1, 2)$\overline{AB}$Line segmentLine segment CD$\overleftrightarrow{AB}$LineLine AB$\overrightarrow{AB}$RayRay AB SymbolMeaningFormulaExample!Factorial$n! = n.(n-1).(n-2)$3.2.1$! = 3.2.1 = 6nPrNumber of permutations of n distinct objects, taken r at a timenPr $= \frac{n!}{(n-r)!}$3P2 $= \frac{3!}{(3-2)!} = 6$nCrNumber of combinations of n distinct objects, taken r at a timenCr $= \frac{n!}{(n-r)!\,r!}$3C2 $= \frac{3!}{(3-2)!\,2!} = 3$P( )Probability of an eventP(A) $= \frac{n(A)}{n(S)}$P(B) $= 1$\{\}Empty setA $= \left\{\right\}$Empty set B = $\cup$Union of sets$A \cup B = \left\{\text{x | x is in A or B}\right\}$$A \cup B$$\cap$Intersection of sets $A\cap B = \left\{\text{x | x is in A and B}\right\}$$A\cap B$ In mathematics, constants refer to entities that maintain fixed values, unlike variables that can change. Constants can encompass essential numbers, fundamental sets, specific concepts of infinity, and pivotal mathematical objects like the identity matrix. Often represented by letters of the alphabet or their variations, these constants are integral to mathematical expressions and equations. Below is a curated table detailing the most frequently encountered constants, including their names, definitions, and applications. SymbolDescriptionValueeEulers constant; the base of the natural logarithme 2.71828Pi: The ratio of a circles circumference to its diameter 3.14159iThe square root of -1$i = \sqrt{-\;1}$ Golden ratio 1.61803$\sqrt{2}$Pythagoras Constant$\sqrt{2}$ 1.41421 SymbolsMeaningExamples^andp ^ qorp qthere exists xfor alln2 > 1 n > 1implies x = 2 x2 = 4if and only ifx + 1 = y + 1 x = y| or :such thatA = { x | x is a natural number. }A = {1, 2, 3,} Numbers serve as abstract symbols to denote arithmetic values, enabling us to count, measure, and categorize objects. When dealing with large quantities, such as 4,657, verbal descriptions become cumbersome. To address this, numerical symbols are employed for more efficient communication. The table below presents these quantities alongside their equivalents in Hindu-Arabic and Roman numeral systems, illustrating the diverse ways we represent numbers. Number NameHindu-Arabic NumeralsRoman numeralBinaryZero0Did not exist0000One1I0001Two2II0010Three3III0011Four4IV0100Five5V0101Six6VI0110Seven7VII0111Eight8VIII1000Nine9IX1001Ten10X1010Eleven11XI1011Twelve12XII1100Thirteen13XIII1101Fourteen14XIV1110Fifteen15XV1111Sixteen16XVI10000Seventeen17XVII10001Eighteen18XVIII10010Nineteen19XIX10011Twenty20XX10100Thirty30XXX11110Forty40XL101000Fifty50L110010Sixty60LX111100Seventy70LXX1000110Eighty80LXXX1010000Ninety90XC1011010Hundred100C1100100 Mathematical symbols serve as a foundational tool in mathematics, streamlining communication and understanding across various aspects of the discipline. Heres an organized overview of their significance: Simplifying Language: Mathematical symbols streamline the expression of relationships and statements. Denoting Quantities: They provide a concise way to represent numerical values. Facilitating Discussion: Symbols ease the referencing and analysis of mathematical concepts. Clarifying Operations: They specify the operations to be performed, reducing errors. Universal Communication: Symbols transcend language barriers, enabling global understanding. A Scottish mathematician, Robert Recorde, invented the equal to sign in 1557. The common symbol for infinity, , was invented by the English mathematician John Wallis in 1655. In mathematics, an exclamation mark (!) represents a factorial symbol. In this article, we learned about the different math symbols and their crucial role in simplifying and conveying complex mathematical concepts. These symbols form the backbone of mathematical communication, enabling precise and efficient problem-solving. To further our understanding, lets solve a few examples and practice MCQs on these symbols for better comprehension. 1. Express using different math symbols: i) the sum of a and b ii) eight times y iii) x to the power of 5 Solution: i) The expression sum of a and b refers to the addition of the terms a and b. Sum of a and b $= a + b$ ii) eight times y Eight $= 8$ Here, y is a variable. Eight times x refers to the multiplication of 8 and x. Eight times $y = 8 \times y = 8y$ We can skip the multiplication symbol when we multiply a constant and a variable. iii) x to the power of 5 means the base is x and the exponent is 5 x to the power of $5 = x^{5}$ 2. Identify the meanings of the math symbols. i) % ii) $\triangle$ iii) ( ) iv) < v) e Solution: i) % Percentage ii) $\triangle$ Triangle iii) ( ) Parentheses OR round brackets iv) < strictly less than v) e The e symbol in math represents the Eulers constant. 3. Interpret the meanings using the math symbols. i) $3 + 6$ ii) $x eq 1$ iii) $a \parallel b$ Solution: ExpressionMeaning$3 + 6 \lt 10$The sum of 3 and 6 is strictly less than 10.$x eq 1$The value of the variable x is not equal to 1.$a \parallel b$The line a is parallel to the line b. 4. What are and-or symbols in logic? Give simple examples. Solution: In mathematics and logic, the and symbol is represented by and the or symbol by . Heres a simple example using these symbols: Example 1: Statement: It is raining and cold. Mathematical Expression: Let statement p represent It is raining and q represent It is cold. The expression becomes pq. Example 2: Statement: You can have tea or coffee. Mathematical Expression: Let statement a represent You can have tea and b represent You can have coffee. The expression becomes ab. Attend this quiz & Test your knowledge.Correct answer is: $p \div q$There are different division symbols. p divided by q can be written as $p \div q$ or p/q or $\frac{p}{q}$.Lines l and m are parallelLines l and m meet at a 45-degree angleLines l and m do not intersectLines l and m are perpendicularCorrect answer is: Lines l and m are perpendicularThe statement $l \bot m$ means that the lines l and m are perpendicular to each other.Correct answer is: $\sqrt{k}$The square root of the number $k = \sqrt{k}$$r \gt > 10$ and $r = 10$Correct answer is: $r \ge 10$Variable r is greater than or equal to $10: r \ge 10$Correct answer is: Proportional toThe symbol $\propto$ is used to represent proportional relationships. Is the infinity symbol a real number? No, the infinity symbol () represents an unbounded quantity, not a specific number, and is used in mathematics to describe potential infinity. Who created the symbol for pi? The symbol for pi, , was created by British mathematician William Jones in 1706 and later popularized by the Swiss mathematician Leonhard Euler. The symbol is a Greek letter. Whats the divisible by symbol? A vertical bar is used to represent divisibility.Example: m|n means m divides n or n is divisible by m.

Math symbols trigonometric functions. Functions symbols. Why are functions important in math.