

The Age of Mathematical Concepts and Symbols

Our clarity of understanding of mathematical concepts corresponds to the time evolution of these concepts. That is, *older is simpler*. As well, the sequence of math concepts taught in schools pretty much follows the historical evolution of mathematical ideas. Here is a rough road map of the time evolution of various mathematical concepts. Asterisks, *, mark content covered in class.

8000 BC*		one-to-one correspondence
4000 BC*		counting
1000 BC	.	zero (as dot)
400 BC*		zero as blank space
300 BC*	0	zero
300 BC*		syllogistic logic
1050	—	horizontal fraction bar
1417	+	plus
1425	%	percent
1432*		mathematician
1484		exponent
1484		billion, trillion,...
1530	0.0	decimal fractions
1544		division
1549		parallel
1551		irrational numbers
1551		theorem
1556*	()	parentheses
1557*	=	equals
1570		equation
1570		prime number
1575	x	variables as letters
1583	sin	sine function
1618	*	times (X in 1618, * in 1659)
1624	log	logarithm function
1631	>	greater/less than
1634		angle
1637		imaginary, real (Descartes)
1647	π	pi
1655	A,B,C	lettering for triangles
1655	∞	infinity
1672		“math” (Newton)
1674	cos	cosine function
1675	d/dx	derivative, integral
1690	e	base of natural logs

Mathematical Foundations

1718		probability
1734	$f(x)$	function symbol
1763		natural number
1770	∂	partial derivative
1777	i	imaginary unit
1786	\lim	limit
1808	$!$	factorial
1816	$ax = bx+c$	linear equation
1827		long division
1839		“Fermat’s last theorem”
1840		pencil
1841	$ $	absolute value
1843	$[\]$	matrices
1848		factor
1851*		set
1882*		isomorphism
1883		eigenvalue
1887		tensor
1888*	\cup	union, intersection
1891		histogram
1892		standard deviation
1902*	e	identity element
1910*	\sim, \vee	not, or, and symbols
1921*		truth table
1931		spinor
1935*		homomorphism
1938		googol, googolplex
1940*	\emptyset	null set
1940*		onto
1975		fractal
1975		chaos
1989*		boundary mathematics