Definitions

Term	Notation Example(s)	We say in English
sequence	x_1, \ldots, x_n	A sequence x_1 to x_n
summation	x_1, \dots, x_n $\sum_{i=1}^n x_i \text{ or } \sum_{i=1}^n x_i$	The sum of the terms of the sequence x_1 to x_n
all reals	\mathbb{R}	The (set of all) real numbers (numbers on the number line)
all integers	\mathbb{Z}	The (set of all) integers (whole numbers including negatives, zero, and positives)
all positive integers	\mathbb{Z}^+	The (set of all) strictly positive integers
all natural numbers	\mathbb{N}	The (set of all) natural numbers. Note : we use the
		convention that 0 is a natural number.
	$f(x) = \begin{cases} x & \text{if } x \ge 0 \\ -x & \text{if } x < 0 \end{cases}$	Define f of x to be x when x is nonnegative and to be $-x$ when x is negative
function application	f(7)	f of 7 or f applied to 7 or the image of 7 under f
	f(z)	f of z or f applied to z or the image of z under f
	f(g(z))	f of g of z or f applied to the result of g applied to z
absolute value	$\left -3\right $	The absolute value of -3
square root	$\sqrt{9}$	The non-negative square root of 9