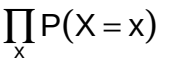
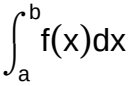
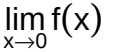
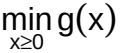
Arithmetic Operators	
x + y	$x + y$
x − y	$x - y$
x * y	xy
x/y	x/y
x %+−% y	$x \pm y$
x%/%y	$x \div y$
x %*% y	$x \times y$
x %.% y	$x \cdot y$
−x	$-x$
+x	$+x$
Sub/Superscripts	
x[i]	x_i
x^2	x^2
Juxtaposition	
x * y	xy
paste(x, y, z)	xyz
Lists	
list(x, y, z)	x, y, z

Radicals	
sqrt(x)	$\sqrt{x}$
sqrt(x, y)	$\sqrt[y]{x}$
Relations	
x == y	$x = y$
x != y	$x \neq y$
x < y	$x < y$
x <= y	$x \leq y$
x > y	$x > y$
x >= y	$x \geq y$
x %~~% y	$x \approx y$
x %=~% y	$x \cong y$
x %==% y	$x \equiv y$
x %prop% y	$x \propto y$
Typeface	
plain(x)	x
italic(x)	*x*
bold(x)	**x**
bolditalic(x)	***x***
underline(x)	$\underline{x}$

Ellipsis		Arrows	
list(x[1], ..., x[n])	$x_1, \ldots, x_n$	x %<–>% y	$x \leftrightarrow y$
x[1] + ... + x[n]	$x_1 + \cdots + x_n$	x %–>% y	$x \rightarrow y$
list(x[1], cdots, x[n])	$x_1, \cdots, x_n$	x %<–% y	$x \leftarrow y$
x[1] + ldots + x[n]	$x_1 + \ldots + x_n$	x %up% y	$x \uparrow y$
Set Relations		x %down% y	$x \downarrow y$
x %subset% y	$x \subset y$	x %<=>% y	$x \Leftrightarrow y$
x %subseteq% y	$x \subseteq y$	x %=>% y	$x \Rightarrow y$
x %supset% y	$x \supset y$	x %<=% y	$x \Leftarrow y$
x %supseteq% y	$x \supseteq y$	x %dblup% y	$x \Uparrow y$
x %notsubset% y	$x \not\subset y$	x %dbldown% y	$x \Downarrow y$
x %in% y	$x \in y$	**Symbolic Names**	
x %notin% y	$x \notin y$	Alpha – Omega	$A - \Omega$
Accents		alpha – omega	$\alpha - \omega$
hat(x)	$\hat{x}$	phi1 + sigma1	$\varphi + \varsigma$
tilde(x)	$\tilde{x}$	Upsilon1	Υ
ring(x)	$\mathring{x}$	infinity	∞
bar(xy)	$\overline{xy}$	32 * degree	32°
widehat(xy)	$\widehat{xy}$	60 * minute	60′
widetilde(xy)	$\widetilde{xy}$	30 * second	30″

Style	
displaystyle(x)	x
textstyle(x)	x
scriptstyle(x)	x
scriptscriptstyle(x)	x
Spacing	
x ~ ~y	$x\ \ y$

x + phantom(0) + y	$x+\quad+y$
x + over(1, phantom(0))	$x+\frac{1}{\quad}$
Fractions	
frac(x, y)	$\frac{x}{y}$
over(x, y)	$\frac{x}{y}$
atop(x, y)	$\begin{matrix}x\\y\end{matrix}$

Big Operators	
sum(x[i], i = 1, n)	
prod(plain(P)(X == x), x)	
integral(f(x) * dx, a, b)	
union(A[i], i == 1, n)	
intersect(A[i], i == 1, n)	
lim(f(x), x %−>% 0)	
min(g(x), x >= 0)	
inf(S)	
sup(S)	

Grouping	
(x + y) * z	$(x+y)z$
x^y + z	$x^{y}+z$
x^(y + z)	$x^{(y+z)}$
x^{y + z}	x^{y+z}
group("(", list(a, b), "]")	$(a, b]$
bgroup("(", atop(x, y), ")")	$\binom{x}{y}$
group(lceil, x, rceil)	$\lceil x \rceil$
group(lfloor, x, rfloor)	$\lfloor x \rfloor$
group("|", x, "|")	$\|x\|$