

1.Logic

\forall	there exists	存在
\exists	for all	对任意的
\neg	not	非
\vee	or	或
\wedge	and	且
\rightarrow	implies	推出符号
$p \rightarrow q$	p implies q if p, then q	p推出q
$p \leftrightarrow q$	p if and only if q p is equivalent to q p and q are equivalent	p与q等价

2.Sets

\emptyset	the empty set	空集
\mathbb{R}	the set of real numbers	实数集
\mathbb{N}	the set of natural numbers	自然数集
\mathbb{Z}	the set of integers	整数集
\mathbb{C}	the set of complex numbers	复数集
\mathbb{Q}	the set of rational numbers	有理数集
$x \in A$	x in A X belongs to A X belonging to A x is an element (a number) of A	x属于A
$x \notin A$	X does not belongs to A x is not an element (a number) of A	x不属于A
A^c	the complement of A	A 的补集
$A \subset B$	A is contained in B	A属于B、A是B的子集
$A \supset B$	A contains B B is a subset of A	A包含于B
$A \cap B$	A cap B A meet B A intersection B A intersected with B	A与B的交集
$A \cup B$	A cup B A join B A union B	A与B的并集
$A \setminus B$	A minus B the difference between A and B	A和B两个集合的差
$A \times B$	A times B A cross B the Cartesian product of A and B	A叉乘B

3.Real numbers

+	plus	加号
	positive	正号
-	minus	减号
	negative	负号
×	multiplied by	乘号
	times	
÷, /	divided by	除号、除以
$x+1$	x plus one	x加1
$x-1$	x minus 1	x减1
$x\pm 1$	x plus or minus one	x加减1
xy	xy	x乘以y
	x multiplied by y	
$(x-y)(x+y)$	x minus 1, x plus y	
	x minus 1 into x plus y	
$(x+y)$	bracket x plus y bracket closed	
$\frac{x}{y}$	x over y	y分之x
$x=5$	x equals 5	x等于5
	x is equal to 5	
$x\approx y$	x is approximately equal to 5	x约等于y
$x\neq y$	x is not equal to 5	x不等于y
$x\equiv y$	x is equivalent to(identical with) y	x恒等于y
$x\not\equiv y$	x is not equivalent to(identical with) y	x不恒等于y
$x\propto y$	x is proportional to y	x与y成比例
$x>y$	x is greater than y	x大于y
$x\gg y$	x is far greater than y	x远大于y
$x\geq y$	x is greater than or equal to y	x大于等于y
	x is no less than y	
$x<y$	x is less than t	x小于y
$x\ll y$	x is far less than y	x远小于y
$x\leq y$	x is less than or equal to y	x小于等于y
	x is no greater than y	
$0<x<1$	zero is less than x less than y	0小于x小于1
$ x $	absolute value of x	x的绝对值
x^2	x squared	x平方
	x (raised) to the power 2	
x^3	x cubed	x的三次方
x^4	x to the fourth	x的四次方
	x to the power four	
x^n	x to the nth	x的n次方
	x to th power n	
x^{-n}	x to the (power) minus n	x的负n次方
x^{-1}	the reciprocal of x	x的负一次方
	x inverse	

\sqrt{x}	(square) root x the square root of x	x的平方根
$\sqrt[3]{x}$	cube root of x	x的三次方
$\sqrt[4]{x}$	fourth root of x	x的四次方
$\sqrt[n]{x}$	nth root of x	x的n次方
$(x+y)^2$	x plus y all squared	x加y的平方
$\left(\frac{x}{y}\right)^2$	x over y all squared	y分之x的平方
$n!$	n factorial	n的阶乘
\hat{x}	x hat	
\bar{x}	x bar	
\tilde{x}	x tilde	
x_i	xi;x subscript I;x suffix I;x sub i	
x_i^j	xij	
x_1, \dots, x_n	x1 up to xn	从xi到xn
$\sum_{i=1}^n a_i$	the sum from i equals one to n ai the sum as i runs from 1 to n of ai	对ai从i=1到n求和
$\prod_{n=1}^{\infty} x_n$	the product of xn from n equal 1 to infinity	xn连乘
0.01	zero point zero one	零点零一
8.6\dot{8}	nought point nought one eighty six point eight recurring	八十六点八，八循环
6.6\dot{8}\dot{6}	eighty six point eight, eight recurring	六点六八六，八六循环
$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$	one half, one third, one quarter(one fourth)	二分之一、三分之一、四分之一
$\frac{2}{3}, \frac{9}{100}$	two thirds, nine hundredths	三分之二、一百分之九
$\frac{7}{1203}$	seven over twelva hundred and three	一千二百零三分之七
5%	five percent	百分之五
30°	thirty degree	三十度
a:b=c:d	the ratio of a to b equals that of c to d	a比b等于c比d
a:b::c:d	a is to b as c is to d	a比b等于c比d
7÷3=2...1	3 into 7 goes 2 times and 1 remainder	七除以三等于二余一

4.Linear algebra

$\ x\ $	the norm(modulus) of x	x的模
\overrightarrow{OA}	OA;vector OA	向量OA
\overline{OA}	OA; segment OA	线段OA
A^T, A'	A transpose;the trancepose of A	A的转置
A^{-1}	A inverse; the inverse of A	A的逆
$ A $	the determinant of A	A的行列式

5.Functions

$f(x)$	fx;f of x; the function f of x	从S到T的一个函数
$f:S\rightarrow T$	a functon f from S to T	x映射到y
$x\mapsto y$	x maps to y; x is mapped (sent) to y	f是u和v的复合
$f=u\circ v$	f is the composite (composition) of u and v	零的极限
$\lim_{x\rightarrow 0}$	the limit as x approaches(tends/goes to) zero	零的右极限
$\lim_{x\rightarrow 0^+}$	the limit as x approaches zero from above	零的左极限
$\lim_{x\rightarrow 0^-}$	the limit as x approaches zero from below	f关于x的一阶导
$f'(x)$	f prime x;f dash x	
	the first derivative of f with respect to x	
$f''(x)$	f double-prime x;f double-dash x	f关于x的二阶导
	the second derivative of f with respect to x	
$f'''(x)$	f triple-prime x;f triple-dash x	f关于x的三阶导
	the third derivative of f with respect to x	
$f^{(4)}(x)$	f four x	f关于x的四阶导
	the fourth derivative of f with respect to x	
$\frac{\partial f}{\partial x_1}$	the partial derivative of f with respect to x1	f关于x1的偏导数
	df by dx1	
$\frac{\partial^2 f}{\partial x_1^2}$	the second partial derivative of f with respect to x1	f关于x1的二阶偏导数
$\int_a^b f(x) dx$	the integral from a to b (of) fx dx	fx从a到b积分
$\int_0^\infty \square$	the integral from zero to infinity	从0到无穷积分
$\iint D$	the double /tripple intefral over the domain D	区域D的二重三重积分
$\exp(x), e^x$	the exponential of x; e to the x	e的x次方
$\log_e y, \ln y$	the logarithm of y to the base e	以e为底与的对数

6.Greek letters

α	alpha
β	beta
γ	gamma
δ	delta
ϵ	epsilon
ζ	zeta
η	eta
θ	theta
ι	iota
κ	kappa
λ	lambda

μ	mu
ν	nu
ξ	xi
π	pi
ρ	rho
σ	sigma
τ	tau
υ	upsilon
ϕ	phi
χ	chi
ψ	psi
ω	omega

7.Abbreviation

etc.	et cetra(=and so on)
e.g.	exempli gratia(=for example)
i.e.	id est(= that is)
viz.	videlicet(=namely)
w.r.t.	with respect to

等等
 举个栗子
 即
 即
 关于

