University 08 Mai 1945 Guelma

Department of Mathematics **Master 1** **2019-2020**

English 1

Mathematical English Dictionary with Phonetic Symbols

For beginners

by

Dr. Bellaouar Djamel

bellaouardj@yahhoo.fr, bellaouar.djamel@univ-guelma.dz

- Helps you learn the most important mathematical words by Engish and French and how to use them.
- Helps you learn the phonetic symbols of some Mathematical phrases
- The Dictionary includes the following subfields:

Analysis /ə'næləsɪs/

Algebra /'ældʒɪbrə/

Geometry /dʒɪ'ɒmɪtrɪ/

Functional Analysis /'fʌŋkʃnəl/ə'næləsɪs/

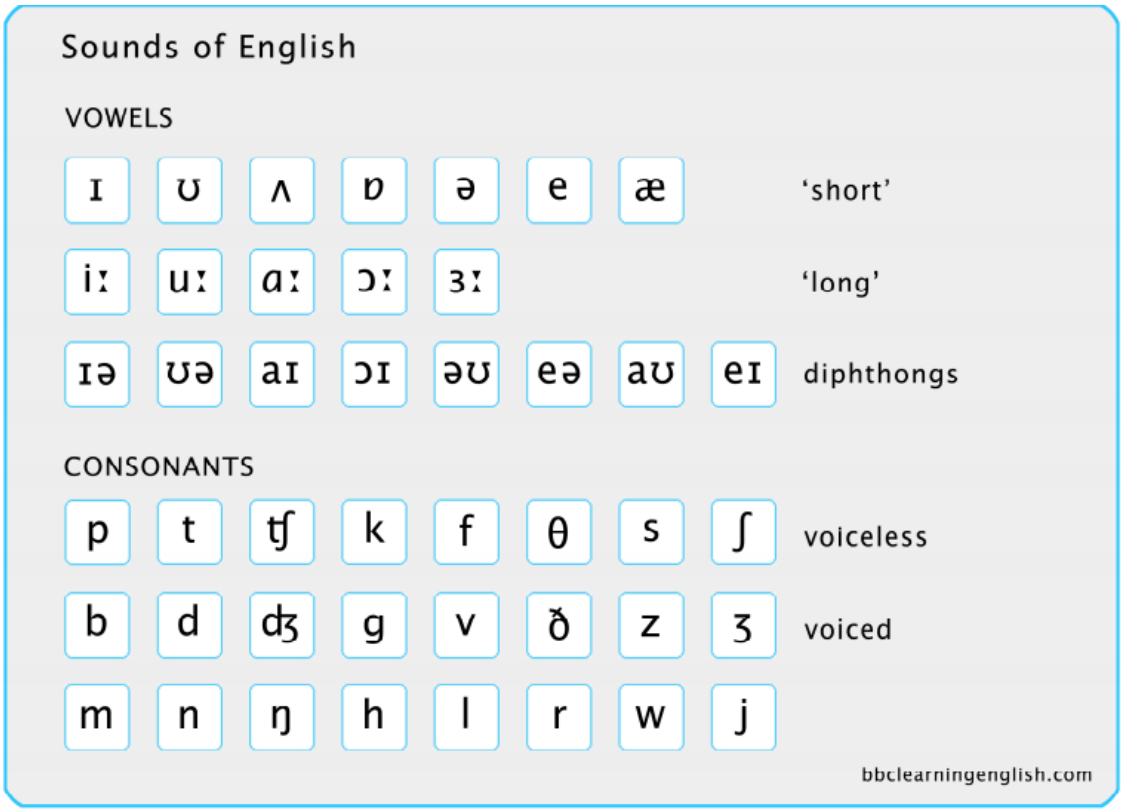
Numerical Analyis /nju:'merɪkəl ə'næləsɪs/

Probability /ˌprɒbə'bɪlɪtɪ/

LEVEL 1

Part 1. Mathematical English Dictionary

1.1. Sounds of English; Vowels and Consonants



1.2. **Vowels** ['vaʊəlz]

1.3. **Consonants** ['kɒnsənənts]

s	z	ʃ	ʒ	tʃ	dʒ	f	v
θ	ð	p	b	t	d	k	g
l	r	j	w	ŋ	n	m	h

1.4. Alphabet Leters with phonetic symbols

In mathematical presentation the correct pronunciation of letters using indices and powers is very important. For example, the expression $\frac{p_i}{q}$ pronounces:

piː aɪ ˈəʊvəʳ kjuː

Letters ['letə(r)z]

a [eɪ]	*J* [dʒeɪ]	*S* [es]
b [biː]	*k* [keɪ]	*t* [tiː]
c [siː]	*l* [el]	*U* [juː]
d [diː]	*M* [em]	*v* [viː]
e [iː]	*n* [en]	*W* ['dʌbljuː]
f [ef]	*O* [əʊ]	*X* [eks]
g [dʒiː]	*P* [piː]	*y* [waɪ]
h [eɪtʃ]	*Q* [kjuː]	*Z* [zed], [ziː]
i [aɪ]	*R* [ɑː(r)]	

1.5. Some words with phonetic symbols

word	[wɜːd]	wife	[waɪf]
arm	[ɑːm]	substitute	['sʌbstɪtjuːt]
question	['kwestʃən]	problem	['prɒbləm]
sister	['sɪstəʳ]	water	['wɔːtəʳ]
party	['pɑːtɪ]	try	[traɪ]
future	['fjuːtʃəʳ]	quadrature	['kwɒdrətʃəʳ]
Baby	['beɪbɪ]	dangerous	['deɪndʒrəs]
substitution	[ˌsʌbstɪ'tjuːʃən]	translation	[trænz'leɪʃən]

translate	[trænz'leɪt]	transpose	[træns'pəʊz]
book	[bʊk]	France	[frɑːns]
child	[tʃaɪld]	children	['tʃɪldrən]
smile	[smaɪl]	cucumber	['kjuːkʌmbəʳ]
important	[ɪm'pɔːtənt]	satisfy	['sætɪsfaɪ]
situation	[ˌsɪtjʊ'eɪʃən]	point	[pɔɪnt]
picture	['pɪktʃəʳ]	south]	[saʊθ
wild	[waɪld]	literature	['lɪtərɪtʃəʳ]

1.6. Small Greek letters used in Mathematics

Lower case Greek alphabet

name	symbol	name	symbol	name	symbol
alpha	α	iota	ι	rho	ρ
beta	β	kappa	κ	sigma	σ
gamma	γ	lambda	λ	tau	τ
delta	δ	mu	μ	upsilon	υ
epsilon	ϵ	nu	ν	phi	ϕ
zeta	ζ	xi	ξ	chi	χ
eta	η	omicron	o	psi	ψ
theta	θ	pi	π	omega	ω

1.7. On the correct pronunciation of Greek Alphabets

alpha ['ælfə]	iota [aɪ'əʊtə]	Rho ['rəʊ]
beta ['biːtə]	kappa	sigma [sɪgmə]
gamma ['gæmə]	lambda	tau [tɔː]
delta ['deltə]	mu [mjuː]	upsilon ['ʌpsɪˌlɒn]
epsilon [epsɪlən]	nu [njuː]	phi [faɪ]
zeta ['ziːtə]	xi [zaɪ]	chi [kaɪ]
eta ['iːtə]	omicron [əʊ'maɪkrɒn]	psi ['psɪ]
Theta ['θiːtə]	pi [paɪ]	omega ['əʊmɪgə]

and alos, we have

α	alpha	β	beta	γ	gamma	δ	delta
ϵ, ε	epsilon	ζ	zeta	η	eta	θ, ϑ	theta
ι	iota	κ	kappa	λ	lambda	μ	mu
ν	nu	ξ	xi	o	omicron	π, ϖ	pi
ρ, ϱ	rho	σ	sigma	τ	tau	υ	upsilon
ϕ, φ	phi	χ	chi	ψ	psi	ω	omega

1.8. Capital Greek letters used in Mathematics

B	Beta	Γ	Gamma	Δ	Delta	Θ	Theta
Λ	Lambda	Ξ	Xi	Π	Pi	Σ	Sigma
Υ	Upsilon	Φ	Phi	Ψ	Psi	Ω	Omega

1.9. Alphabitical English Dictionary of Mathematics

In this section we present a simple dictionary which contains the famous mathematical words and phrases. These words are used in elementary and advanced mathematics. Readers unfamiliar phonetic sumbols are referred to the dictionary [3-4].

A

hypergeometric

A set equipped with a distance, *un ensemble muni par une distance*

Abel ['eɪbl], *Abel* [m]

Abelian [ə'biːlɪən] adjective, *abélien* [adj]

Abelian group, *groupe abélien (commutatif)*

Abelian law, *loi commutative*

Above [ə'bʌv], *au-dessus*

Absolute ['æbsəluːt], *absolu(e)*

Absolute value, *valeur absolue*.

Absolutely [ˌæbsə'luːtlɪ], *absolument, absolument convergente (intégrale, série)*

absolutely convergent series *série absolument convergente*

Acknowledgements [ək'nɒlɪdʒmənts]

Add [æd], *ajouter*

Additionally [ə'dɪʃnəlɪ] adverb *en outre, de plus*

Admit [əd'mɪt], *admettre*

Algebra : the branch of mathematics that deals with variables or unknowns representing the arithmetic numbers

a.e. almost everywhere, *p.p* *presque partout*

Algebra ['ældʒɪbrə], *algèbre*

Algebraic [ˌældʒɪ'breɪɪk] adj, *algébrique* adj

Algebraic multiplicity, algebraic structure, algebraic and topological structure

Algorithm : A rule or procedure used to solve a mathematical problem

Algorithm ['ælgəˌrɪðəm], *algorithme*

all [ɔːl]

Analogous adj [ə'næləgəs], *analogue* adj

Analysis [ə'næləsɪs], pl **analyses** [ə'nælɪsiːz], *analyse* f

analytic, analytical adjective [ˌænə'lɪtɪkəl] *analytique*

Answer ['ɑːnsəʳ], *réponse* f , *solution* f

Antisymmetric [ˌæntɪsɪ'metrɪk], *antisymétrique* adj

appendix [ə'pendɪks] **appendixes** or **appendices** of book *appendice* m of document *annexe* f

applicable [ə'plɪkəbl], *applicable* (to : à)

Application [ˌæplɪ'keɪʃən], *application* f

Applied [ə'plaɪd], *appliqué*

Applied Linear Algebra, *algèbre linéaire appliqué*

Appreciable [ə'priːʃəbl]

Appreciable, *appréciable* ad

Approach [ə'prəʊtʃ], approach value, *valeur approchée* adj

Approximation [ə,prɒksɪ'meɪʃən], *approximation* f

arbitrarily ['ɑːbɪtrərəlɪ], *arbitrairement*

arbitrarily close to *arbitrairement proche de*

Arbitrary ['ɑːbɪtrərɪ] adj, *arbitraire* adj

arc [ɑːk], *arc* m

arc sine x

Area ['ɛərɪə] domaine m,

Argument ['ɑːgjʊmənt], *argument*

Argument, the argument of a complex number

Arithmetic [ə'rɪθmətɪk], *arithmétique*

Article ['ɑːtɪkl], *article* m

assembly [ə'semblɪ]

Assertion [ə'sɜːʃən]], statement, affirmation m, assertion m

Associative [ə'səʊʃɪətɪv], Mathematics, *associatif-ive*

Associativity, *associativité, L'associativité de l'addition dans ℝ.*

Assume [ə'sjuːm], *supposer, supposons que,*

Assumption [ə'sʌmpʃən] , *hypothèse* m

Asymptotic, *asymptotique*

attention [ə'tenʃən]

Automorphism, *automorphisme* [m] [otomɔʀfism]

average ['ævərɪdʒ], *moyenne* [f]

Duplicated lecture notes, *polycopié* [m]

Axiom : a statement regarded as self-evident; accepted without proof

Axiom ['æksɪəm], *axiome* [m]

axis ['æksɪs] noun, pl **axes**, *axe* [m]

B

Ball [bɔːl], *boule* [f]

Bar [bɑːʳ], *barre* [f], we say *X* bar, *On dit X barre*.

Basic ['beɪsɪk], *fondamental* [adj], *essentiel* [adj], *élémentaire* [adj]

Basis ['beɪsɪs] pl **bases**, *base* [f]

because [bɪ'kɒz]

Because, since [bɪ'kɒz], *puisque*, *car*, *comme*

behaviour, behavior US [bɪ'heɪvjəʳ]

being ['biːɪŋ]

Belong [bɪ'lɒŋ], *appartenir à*

below [bɪ'ləʊ]

Best [best], *le meilleur, la meilleure*

Best approximation, *la meilleure approximation*

Bibliography [ˌbɪblɪ'ɒgrəfɪ], *bibliographie* [f], *référence* [f]

Bijective [baɪ'dʒektɪv], *bijectif* adj

Bijective function

Bilinear, *bilinéaire,* ♦ Math. *Application, forme bilinéaire pour un couple de variables,* linéaire par rapport aux deux variables.

Binary ['baɪnərɪ], *binaire*

Binary relation, *relation binaire*

Binomial : an expression with two terms

Binomial [baɪ'nəʊmɪəl], Mathematics, *binôme* m

Bisection [baɪ'sekʃən], *division en deux parties égales, bissection* f

Bnach space, *un espace de Banach*

Body ['bɒdɪ], *Field, corps* m

Bound, [baʊnd], **bounds,** [baʊndz], *limite(s)* f(pl) , *bornes*

Boundary ['baʊndərɪ], *limite* f, *frontière* f

Bounded ['baʊndɪd]

bounded above, bounded below, borné(e) supérieurement, borné(e) inférieurement

Boundless ['baʊndlɪs], *infini, illimité*

bracket ['brækɪt], **bracket** ['brækɪt], *parenthèse* f left bracket *parenthèse à gauche* right bracket *parenthèse à droite*

Branch [brɑːntʃ], *branche* f

By using the ..., *En utilisant ...*

C

Calculate ['kælkjʊleɪt], *calculer* v

Calculus, pl **calculuses** ['kælkjʊləs], *calcul* m

Canonical [kə'nɒnɪkəl], *canonique* adj

Cardinal ['kɑːdɪnl], adjective, *cardinal*

Cartesian [kɑː'tiːzɪən] adjective ; noun *cartésien(ne)* m(f) Cartesian coordinates plural noun Mathematics : *coordonnées* fpl *cartésiennes*

category ['kætɪgərɪ], *catégorie* f

Centre, center US ['sentəʳ], *centre* m

certain ['sɜːtən]

chain [tʃeɪn], *chaîne* f

Change of basis *changement de base*

changing ['tʃeɪndʒɪŋ] adjective *variable, changeant*

Chapter ['tʃæptəʳ], *chapitre* m

character ['kærɪktəʳ] noun *caractère* m

characteristic [ˌkærɪktə'rɪstɪk], *caractéristique* adj

characteristic polynomial

characterization [ˌkærɪktəraɪ'zeɪʃən], *interprétation* , *caractérisation* f

characterize ['kærɪktəraɪz]

choice [tʃɔɪs]

circle ['sɜːkl], *cercle* m

close [kləʊs], *proche*

Closed [kləʊzd], *fermé* adj

Closure ['kləʊʒəʳ], *fermeture* f

coefficient [ˌkəʊɪ'fɪʃənt], *coefficient* m

cofactor ['kəʊˌfæktəʳ], *comatrice*, *cofacteur* m

Collection [kə'lekʃən], *collection* [f]

Column ['kɒləm], *colonne* [f] **colum nvector,** *vecteur colonne*

Combination [ˌkɒmbɪ'neɪʃən], *combinaison* [f]

combinatorial, combinatory Mathématique *combinatoire*
combinatorial analysis, combinatorics, Mathematical Induction in Combinatorics

comma ['kɒmə], *virgule* [f]

comment ['kɒment] , *commentaire* [m], *remarque* [f]

Comments about the chapter II, *commentaires sur le chapitre II*

common ['kɒmən]

Commutative [adj] [kə'mjuːtətɪv], *lois* [fpl] *commutatives*

Commutativity, commutative property

Compact [kəm'pækt], *compact* [adj]

Compact self-adjoint operators on a Hilbert space

compactness [kəm'pæktnɪs] noun *compacité* [f]

compactness [kəm'pæktnɪs] noun *compacité* [f]

Comparable ['kɒmpərəbl], *comparable*

Comparison [kəm'pærɪsn], Comparison test, *comparaison* [f]

Complete [kəm'pliːt], *complet (-ète* [f]*), un espace complet*

Complex ['kɒmpleks], *complexe* [adj]

complex-valued function *fonction à valeurs complexes*

Component [kəm'pəʊnənt], *composant*

Components [kəm'pəʊnənts], *les composants de X*

Composite ['kɒmpəzɪt], Mathematics, *composé*

Composite number, not prime, *nombre composé*

composition [ˌkɒmpə'zɪʃən] *composition* f

computation [ˌkɒmpjʊ'teɪʃən] noun *calcul* m *estimation* f, *évaluation* f

Compute [kəm'pjuːt], *Calculer*

Concept ['kɒnsept], *notion* f, *idée* f, *concept* m

Conclusion [kən'kluːʒən], conclusion f, *fin* f

Condition [kən'dɪʃən], *condition* f

conditional [kən'dɪʃənl], conditionnel

cone [kəʊn] noun Mathematics, *cône* m

congruence ['kɒŋgrʊəns], Mathematics, *congruence* f

Conjecture [kən'dʒektʃəʳ], *conjecture* f

Conjugate ['kɒndʒʊgeɪt] , *conjuguée (matrice)*

Conjugate or Dual of an Operator

Connected [kə'nektɪd] adj connected and disconnected Mathematics, connected space, *connexe* adj

consequence ['kɒnsɪkwəns] noun *conséquence* f,

consequence ['kɒnsɪkwəns] noun, *conséquence* f

Constant ['kɒnstənt], *constante* f , *un nombre constant* adj

constant *constant(e)* adj

constant function, *fonction constant(e)*

construction [kən'strʌkʃən], *construction* f,

Contained [kən'teɪnd], contained in *A*.

Containing *A*

Continuous [kən'tɪnjʊəs], *continu(e)*

Contraction [kən'trækʃən], *contraction* [f]

Contradiction [ˌkɒntrə'dɪkʃən], *contradiction* [f]

convention [kən'venʃən] noun *convention* [f] *by convention 0!=1 and* $a^0=1$, *par convention 0!=1 et* $a^0=1$. *By convention, the degree of p=0 is -∞.*

Converge [kən'vɜːdʒ], *converger* [v]

Convergence [kən'vɜːdʒəns], *convergence* [f]

Convergence and Continuity

Convergent [kən'vɜːdʒənt], *convergent(e)* [adj]

Converse ['kɒnvɜːs], **inverse**

Conversely [kɒn'vɜːslɪ], *inversement*

Convex ['kɒn'veks], *convexe*

Coordinate [kəʊ'ɔːdɪnɪt], Mathematics, *coordonnée*

Corollary [kə'rɒlərɪ], *corollaire* [m]

Cosine ['kəʊsaɪn], *cosinus* [m]

Countable ['kaʊntəbl] adjective, *dénombrable*

Countable dense subset, *sous-ensemble dense dénombrable*

counterexample ['kaʊntərɪgˌzɑːmpəl], noun, *contre-exemple* [m]

counting ['kaʊntɪŋ], *calcul* [m] , the prime counting function

Couple ['kʌpl], *couple* [m]

Course [kɔːs], *cours* nom masculin

Criterion [kraɪ'tɪərɪən] noun, pl **criterions or criteria** [kraɪ'tɪərɪə], *critère* m

cryptography [krɪp'tɒgrəfɪ] noun *cryptographie* f

cube [kjuːb], Mathematics, *cube* m

Cubic ['kjuːbɪk], *cubique* adj

curve [kɜːv], *courbe* f

cyclic, ['saɪklɪkəl], **cyclical,** adjective, *cyclique*

D

Decomposition [ˌdiːkɒmpə'zɪʃən], *décomposition* f

Decreasing [diː'kriːsɪŋ], *décroissant* adj

Define [dɪ'faɪn], *définer, on définit*

Definite ['defɪnɪt], *défini-e* adj

Definite integral,

definitely ['defɪnɪtlɪ]

Definition [ˌdefɪ'nɪʃən], *définition* f

Definitions and basic properties

degenerate *dégénéré(e)*

Degree [dɪ'griː], *degré* m

Demonstrable ['demənstrəbl] *démontrable* adj

Demonstration [ˌdemən'streɪʃən], *démonstration* f

Denominator [dɪ'nɒmɪneɪtəʳ], *dénominateur* m

Denote [dɪ'nəʊt], *indiquer, dénoter, on note*

Dense [dens], *dense* adj

Density ['densɪtɪ], *densité* f

Department [dɪ'pɑːtmənt] noun *département* m

depend on *dépendre de*

derivation [ˌderɪ'veɪʃən], *dérivation* f

Derivative [dɪ'rɪvətɪv], Mathematics, *dérivée* f

Determinant [dɪ'tɜːmɪnənt], *déterminant* m

Development [dɪ'veləpmənt], *développement* m

diagonal [daɪ'ægənl], *diagonal* adj , *diagonale* nom,adj

Diagonalizable, *diagonalizable* adj

Different ['dɪfrənt], (different from)not the same, *different*

differentiable function *fonction dérivable*

differential [ˌdɪfə'renʃəl], *différentiel, différentielle*

Differential equation, *équation différentielle*

Differential geometry, *géométrie différentielle*

Differential operator

Differentiation [ˌdɪfərenʃɪ'eɪʃən], Mathematics *différentiation* f

Digit ['dɪdʒɪt] noun Mathematics, *chiffre* m

Dimension [daɪ'menʃən], *dimension* f

Direct [daɪ'rekt], *direct-e*, **(direct) sum** *somme (directe)*

Direct sum of subspaces, Direct sums

directly [dɪ'rektlɪ] adverb = straight *directement*

Disconnected [ˌdɪskə'nektɪd] adjective

discrete [dɪs'kriːt] adjective Mathematics, *discret (-ète*[f]*)*

discriminant [dɪs'krɪmɪnənt], Mathematics *discriminant* [m]

discussion [dɪs'kʌʃən] noun *discussion* [f], *débat* [m]

Disjoint [dɪs'dʒɔɪnt] adjective Mathematics, *disjoint*

Disjoint sets, *ensembles disjoints*

Distance ['dɪstəns], *distance* [f]

distinction [dɪs'tɪŋkʃən] noun = difference *distinction* [f],

Distribution [dɪstrɪ'bjuːʃən], *distribution* [f]

Distributions and Sobolev Spaces

Diverge [daɪ'vɜːdʒ], *diverger* [v]

Divergence [daɪ'vɜːdʒəns], noun, *divergence* [f]

Divergent, adjective [daɪ'vɜːdʒənt]

Divided [dɪ'vaɪdɪd], *divisé*

Divisibility, *la divisibilité* [f]

Divisible [dɪ'vɪzəbl], *divisible* [adj] (by : *par*)

Division [dɪ'vɪʒən], *la division*

divisor [dɪ'vaɪzəʳ] noun Mathematics *diviseur* [m]

Domain [dəʊ'meɪn], *domaine* [m]

dominant ['dɒmɪnənt] *dominant*

Dot [dɒt], **pois** [m] Mathematics, *point* [m]

double ['dʌbl] adjective *double*

Double ['dʌbl], *double* [adj]

Dual ['djʊəl], *duel* [m]

E

easily ['iːzili] adverb *facilement*

Easy ['iːzɪ], *facile* [adj], *simple* [adj]

Eigenspace, *espace propre*

Eigenvalue, ['iːgæn 'vælju:], *valeur propre*

Eigenvalues and eigenvectors of a symmetric matrix

Eigenvector, *vecteur propre*

Element ['elɪmənt], *élément* [m]

elementary [ˌelɪ'mentərɪ]

Elementary Number Theory, is the pureset branch of pure mathematics.

Elements of Hilbert Space

Empty ['emptɪ], *vide,* the set with no elements. *L'ensemble vide.*

end [end]

Endomorphism [ˌendəʊ'mɔːfɪzəm], *endomorphisme* [m]

entire [ɪn'taɪəʳ] adjective *(tout) entier* before plural noun *entier*

Epsilon, *epsilon*, [ɛpsilɔn]

Equal ['iːkwəl], Mathematics, *égal*

Equality [ɪ'kwɒlɪtɪ], *égalité* [f]

Equation [ɪ'kweɪʒən], Mathematics, Chemistry, *équation* [f]

Equipped [ɪ'kwɪpt], *muni-e,*

Equivalence [ɪ'kwɪvələns], *équivalence*

Equivalence relation

Equivalent [ɪ'kwɪvələnt], adjective *équivalent*

establish [ɪs'tæblɪʃ]

estimate ['estɪmət] *estimation* f

etc [ɪt'setərə], abbreviation of **et cetera** : abréviation de *et cætera,* etc

Euclid's Algorithm

Euclidean [juː'klɪdɪən], *euclidien*, non-Euclidean geometry, *géométrie* f *non-euclidienne*

Evaluate [ɪ'væljʊeɪt], *évaluer*, *calculer*

evaluation [ɪ,væljʊ'eɪʃən], *évaluation* f

Even ['iːvən], *pair, paire* adj

Even function, *fonction paire*

Every ['evrɪ], for every, *tout, chaque, tous , pour tout*

Evident ['evɪdənt], *évident* adj

Exact [ɪg'zækt], *solution exacte*

Example [ɪg'zɑːmpl], *exemple* m

Except [ɪk'sept], *sauf*

Exercise ['eksəsaɪz], *exercice* m

Existence [ɪg'zɪstəns], *existence* f

Expansion [ɪk'spænʃən], *développement* m

explain [ɪk'spleɪn] verb *expliquer*

exponent [ɪk'spəʊnənt] noun, Mathematics, *exposant* m

Exponential [,ekspəʊ'nenʃəl], *exponentiel*

Exponentiation

express [ɪk'spres]

Expression [ɪk'spreʃən], *expression* [f]

Extension [ɪk'stenʃən], *extension* [f]

External [ɪk'stɜːnl] *externe*

F

Factor ['fæktəʳ], Mathematics, *facteur* [m], *élément* [m]

Factorial [fæk'tɔːrɪəl], *factoriel*

Factorization, *factorisation*

Factorize ['fæktə,raɪz], Mathematics, *mettre en facteurs*

False [fɔːls] *faux, fausse*

Family ['fæmɪlɪ], *famille* [f]

Famous ['feɪməs] *célèbre*

Fibonacci sequence [,fɪbə'nɑːtʃɪ'siːkwəns], **Fibonacci series** [,fɪbə'nɑːtʃɪ'sɪərɪs] noun Mathematics *suite* [f] *de Fibonacci*

Field [fiːld], corps

finally ['faɪnəlɪ] adverb *finalement*

Find [faɪnd], *trouver,* **we find**, *on trouve*

Finite ['faɪnaɪt], *limité, fini, finie*

finite dimension, *dimension finie*
infini te dimension, *dimension infinie*

Finite dimensional, *de dimension finie*

finite element method

finite set, *ensemble fini*

First [fɜːst], *premier*

First order differential equations, *équations différentielles du premier ordre*.

Firstly ['fɜːstlɪ] adverb, *d'abord, premièrement*

Fixed [fɪkst], unique fixed point, *point fixe unique*

Following ['fɒləʊɪŋ], *suivant, suivante*

For all, *pour tout*, **For every,** *pour tout*

Form [fɔːm], *forme* f

Formula ['fɔːmjʊlə] pl formulas ['fɔːmjʊləs] or formulae ['fɔːmjʊliː], *formule*

formulation [ˌfɔːmjʊ'leɪʃən] noun *formulation* f

Fraction ['frækʃən], Mathematics, *fraction* f

Free [friː], *libre*

From the hypothesis, *d'aprèrs l'hypothèse*

Function ['fʌŋkʃən], *fonction* f Math. Relation qui existe entre deux quantités, telle que toute variation de la première entraîne une variation correspondante de la seconde (ou en terme d'ensembles, étant donné deux ensembles X et Y, toute opération qui associe à tout élément *x* de X un élément *y* de Y que l'on note *f(x)*.

function in three variables *fonction en trois variables*

Functional ['fʌŋkʃnəl], *fonctionnel, analyse fonctionnelle*

Functional analysis, *analyse fonctionnelle*

Fundamental [ˌfʌndə'mentl], *fondamental, essentiel*

fuzzy ['fʌzɪ], *flou*

G

gcd, The greatest commun divisor. *Le p.g.c.d, le plus grand commun diviseur*

General ['dʒenərəl], *général*

generalization [ˌdʒenərəlaɪ'zeɪʃən], *généralisation* [f]

geometric series *série géométrique*

Geometry [dʒɪ'ɒmɪtrɪ], *géométrie* [f]

global ['gləʊbl] adjective

global maximum *maximum global*
local maximum *maximum local*

global minimum *minimum global*
local minimum *minimum local*

Graph [grɑːf], *graphe* [m]

graphic ['græfɪk], *graphique* [adj]

Group [gruːp], *groupe* [m]

H

half-open interval *intervalle demi ouvert*

Harmonic [hɑː'mɒnɪk], Mathematics, *harmonique*

Heat [hiːt], *chaleur* [f]

Heat equation, *équation de la chaleur*.

Hence [hens], d'où

High [haɪ], *haut*, higher dimensions

Hilbert Spaces

hint [hɪnt], hint of the proof

hold [həʊld], **holds** [həʊldz]

Homeomorphism *homéomorphisme* [m] [ɔmeɔmɔʀfism]

Homogeneous [ˌhəʊmə'dʒiːnɪəs], *homogène*

Homogeneous system, *système homogène*

homomorphism [ˌhɒmə'mɔːfɪzəm] noun

hyperbolic [ˌhaɪpə'bɒlɪk], **hyperbolical** [ˌhaɪpə'bɒlɪkəl], *hyperbolique*

Hyperbolic function, Mathematics : *fonction* [f] *hyperbolique*.

Hypothesis [ˌhaɪ'pɒθɪsɪs] noun, pl **hypotheses** [haɪ'pɒθɪsiːz], *hypothèse* [f]

I

i- th column

i.e., identically equivalent, *identiquement équivalente*

Idea [aɪ'dɪə], *idée* [f]

ideal [aɪ'dɪəl], adjective or noun, *idéal* [m]

identically [aɪ'dentɪkəlɪ]

Identity [aɪ'dentɪtɪ], *identité* [f]

Identity matrix, Identity map

If and only if, *si et seulement, si*

iff ['ɪf], if and only if, *si et seulement si*

illustrate ['ɪləstreɪt]

illustration [ˌɪləs'treɪʃən] noun *illustration* [f]

Image ['ɪmɪdʒ], *image* [f]

Imaginary [ɪ'mædʒɪnərɪ], *imaginaire* [adj]

Imaginary number (Mathematics) : *nombre* [m] *imaginaire*

implication [ˌɪmplɪˈkeɪʃən], *implication* [f]

Implies that, *implique*

important [ɪmˈpɔːtənt] , *important-e*

Important, *the most important concept concerning sequences is convergence.*

Improper [ɪmˈprɒpəʳ], *improper*

improve [ɪmˈpruːv], *améliorer, développer*

improvement [ɪmˈpruːvmənt]

in other words *autrement dit*

Increasing [ɪnˈkriːsɪŋ], *croissant, suite croissante*

Indeed [ɪnˈdiːd], *en effet*

Indefinite [ɪnˈdefɪnɪt], *indéfini-ie, illimité*

Indefinite integral

independence [ˌɪndɪˈpendəns], *indépendance* [f]

independent [ˌɪndɪˈpendənt], *indépendant*

Indeterminate [ˌɪndɪˈtɜːmnɪt]

indeterminate form of type zero over zero

index [ˈɪndeks] pl **indices** [ˈɪndɪsiːz], *indice* [m]

Induction [ɪnˈdʌkʃən], *récurrence*

inequality [ˌɪnɪˈkwɒlɪtɪ], *inégalité* [f]

inferior [ɪnˈfɪərɪəʳ]

Infinite [ˈɪnfɪnɪt], *infini, illimité* [adj]

Infinite dimensional, *de dimension infinie*

Infinitely ['ɪnfɪnɪtlɪ], *infiniment*

Infinitesimal [ˌɪnfɪnɪ'tesɪməl], Mathematics *infinitésimal* adj

Infinity [ɪn'fɪnɪtɪ], *infinité* f, *infini* m

Infinity, the limit of *f* as *x* tends to infinity is *a*, *la limte de f lorsque x tend vers l'infini est a*.

Initial [ɪ'nɪʃəl], *initial* adj

Initial condition, *condition initiale*

Initial value, *valeur initiale*

Injective *injective*

Inner ['ɪnəʳ], **inner product,** *produit scalaire*.

Inner product spaces, *espaces préhilbertiens*

Integer ['ɪntɪdʒəʳ], *entier (nombre* m*)*

Integrable, *intégrable* adj

Integral ['ɪntɪgrəl], *intégral*

Integral operator

Integration [ˌɪntɪ'greɪʃən], *intégration* f

Interior [ɪn'tɪərɪəʳ], *intérieur (-eure*f*)*

Internal [ɪn'tɜːnl], *interne*

Interpolation [ɪnˌtɜːpə'leɪʃən], *interpolation* f

Intersection [ˌɪntə'sekʃən] Mathematics, *intersection* f

Interval ['ɪntəvəl], *intervalle* m

Introduce [ˌɪntrə'djuːs] *présenter*

introduction [ˌɪntrə'dʌkʃən], *introduction* f

Inverse ['ɪnvɜːs], *inverse*

Invertible matrix, *matrice inversible*

Invertible, invertible matrices, *inversible* adj

involve [ɪn'vɒlv] **involving** *faisant intervenir*

Irrational [ɪ'ræʃənl], Mathematics, *irrationnel* adj

irreducible [ˌɪrɪ'djuːsəbl], *irréductible* adj

irregular [ɪ'regjʊlər] adjective, Mathematics, *irrégulier*

isometric [ˌaɪsəʊ'metrɪk], *isométrique*

isomorphism [ˌaɪsəʊ'mɔːfɪzəm] noun, *isomorphisme* m

It follows that, *il vient*

Iterate, *itérer*

Iterative ['ɪtərətɪv], *itératif, itérative* adj

Iterative Methods for Solving Linear Systems

J,K

Jacobi's method, *Méthode de Jacobi*

Jacobian *le jacobien [= le déterminant de la matrice jacobienne]*

Jacobian matrix, *matrice jacobienne*

Kernel ['kɜːnl], *noyau* m

L

L.H. S. [= left hand side] *terme de gauche*

Laboratory [lə'bɒrətərɪ], *laboratoire* m

Large [lɑːdʒ], *grand*

Large enough *assez grand*
sufficiently large *suffisamment grand*

Law [lɔː], *loi* [f]

Leading ['liːdɪŋ], the leading coefficient

Least [liːst], *le plus petit, la plus petite.* **Least squares method,**

Least upper bound of a set

Lemma ['lemə] noun, pl **lemmas or lemmata** ['lemətə], *lemme*

Let f **be a function,** *Soit* f *une fonction*

Let [let], let E be a nonempty set, Soit E un ensemble non vide.

likewise ['laɪkwaɪz] adverb *de même, également, aussi, de plus, en outre*

Limit ['lɪmɪt], *la limite* [f]

Limited ['lɪmɪtɪd], *limité, borné* [adj]

Line [laɪn], Mathematics, *ligne* [f]

Linear ['lɪnɪəʳ], *linéaire* [adj]

Linear Algebra

Linear Operator, linear maps, linear equation, ...

Linearly dependent

linearly dependent, *liés, linéairement dépendants*

Linearly independent, *libres, linéairement indépendants*

Log [lɒg]. *log* logarithme [m]

Logarithm ['lɒgərɪθəm] *logarithme* [m]

Logic ['lɒdʒɪk], *logique* [f]

Lower ['ləʊəʳ], *inférieur* (-*eure* [f])

Lower bound

Lower triangular matrix, *matrice triangulaire inférieure*

LU factorisation

M

m × *n* **matrix [** *m* **by** *n* **matrix],** *matrice à m lignes et n colonnes*

Manner ['mænəʳ], *manière* [f], *façon* [f]

Map ['mæp], Mathematics, *application* [f]

Maple ['meɪpl]

Mapping ['mæpɪŋ], Mathematics, *application* [f]

Maps and their graphs

Mathematical [ˌmæθə'mætɪkəl], *mathématique* [adj]

Mathematical induction,

mathematically [ˌmæθə'mætɪkəlɪ] adverb in general *mathématiquement*

Mathematician [ˌmæθəmə'tɪʃən], noun *mathématicien(ne)*[m(f)]

mathématicien(ne)[m(f)]

Mathematics [ˌmæθə'mætɪks], noun *mathématiques* [fpl] *In applying mathematics. In applied mathematics.*

matrix entry (pl . entrie s), *coefficient d'une matrice*

Matrix norm, *norme matricielle*

Matrix pl **matrices** ['meɪtrɪks], *matrice* [f]

Maximal ['mæksɪml], *maximal* [adj] Maximal element

Maximum ['mæksɪməm], pl **maximums or maxima,** *maximum* [m]

Maximum principle, *principe du maximum*

Measurable ['meʒərəbl], *mesurable* adj

Measure ['meʒəʳ], *mesure* f

Measure and integration

member ['membəʳ]

Method ['meθəd], *méthode* f

Methods for Eigenvalues of Symmetric Matrices

Metric ['metrɪk], or distance function, *métrique*.

Metric space, *un espace métrique*.

Minimal ['mɪnɪml], *minimal*

minimization [ˌmɪnɪmaɪ'zeɪʃən], *minimisation* f

Minimization of Convex Functions

Minimum ['mɪnɪməm], pl **minimums or minima,** *minimum* m

modelling, modeling US ['mɒdlɪŋ] *modélisation* f

modulo, *modulo*

Modulus ['mɒdjʊləs], pl **moduli** ['mɒdjʊˌlaɪ], Mathematics, Physics, *module* m

Monotone ['mɒnətəʊn], Mathématique, *monotone* adj

Monotone matrix, *matrice monotone*

Monotonous, [mə'nɒtənəs] , *monotone* adj

multi-index *multiindice*

multi-linear form, *forme multilinéaire*

Multilinear, *multilinéaire* adj

multiple ['mʌltɪpl], Mathematics *multiple* [m]

multiple ['mʌltɪpl], Mathematics, *multiple* [m]

multiple root *racine multiple*

multiplication [ˌmʌltɪplɪ'keɪʃən], *multiplication* [f]

multiplicative ['mʌltɪplɪˌkeɪtɪv] Mathematics, *multiplicatif*

Multiplicities of an eigenvalue

multiplicity [ˌmʌltɪ'plɪsɪtɪ], *la multiplicité* [f]

Multiplied by, Times, *fois, 3 fois 4*.

Multiply ['mʌltɪplaɪ], *multiplier, fois*

N

namely ['neɪmlɪ] adverb

Natural ['nætʃrəl], *naturel , entier*

Natural numbers : 0,1,2,...

near [nɪəʳ]

Necessary ['nesɪsərɪ] , *nécessaire*

Necessary condition, *condition nécessaire*. a necessary and sufficient condition, *une condition nécessaire et suffisante*

Negative ['negətɪv], *négatif, négative*.

Neighbourhood ['neɪbəhʊd], neighborhood US, *voisinage*

Neutral ['njuːtrəl] neutral element, l'élément neutre

neutrix ['njuːtrɪks] **neutrices** noun a neutrix is an additive convex subgroup of $\mathbb{R}$

Nil [nɪl] noun *zéro*

Non- [nɒn], *non, non linéaire, nonnegative, nonempty, ...*

Noncommutative, nonnegative, ...

non-constant, *non constant(e)* adj

nondecreasing

non-degenerate, nondegenerate *non dégénéré(e)*

Nonempty set, *un ensemble non vide*.

Nonhomogeneous

Nonlinear [ˌnɒnˈlɪnɪəʳ], *non linéaire*

non-linear, nonlinear, *non linéaire*

Nonlinear Systems and Numerical Optimization

Nonzero vector, *un vecteur non nul*

Norm [nɔːm], *la norme*

Normal [ˈnɔːməl], *normal*

Normed linear space, *espace vectoriel normé*

Normed space [nɔːməd], *espace normé*

Norms and condition numbers

Notation [nəʊˈteɪʃən], `Mathematics`, *notation* f

***n*-th** [enθ], `the nth` *le n-ième*

n-**th derivative**, *dérivée n-ième*

***nth* prime,** `The nth prime number`, *le n-ième nombre premier*.

n-tuple, *n-uplet*

null [nʌl], *nul, nulle* adj

Number ['nʌmbəʳ], *nombre* [m] **Number theorist, Number Theory**

Numerator ['nju:məreɪtəʳ], Mathematics, *numérateur* [m]

Numerical [nju:'merɪkəl], *Analyse numérique*

Numerical integration, *intégration numérique*

Numerical Solution of Ordinary Differential Equations

O

object ['ɒbdʒɪkt]

obvious ['ɒbvɪəs], **évident**

Odd [ɒd], *impair, un entier impair, une fonction impaire*

Odd function, *fonction impaire*

ODE, Ordinary Differential Equations

on the other hand *d'autre part*

Open ['əʊpən], *ouvert*

Operation [ˌɒpə'reɪʃən], *opération* [f]

Operator ['ɒpəreɪtəʳ], *opérateur* [m]

Optimization [ˌɒptɪmaɪ'zeɪʃən], *optimisation* [f]

orbit ['ɔ:bɪt], *orbite* [f]

Order ['ɔ:dəʳ], *ordre* [m]

Order relation, *relation d'ordre*

ordered pair *couple ordonné*

Ordinary ['ɔ:dnrɪ], *ordinaire*

origin ['ɒrɪdʒɪn] noun *origine* [f]

Orthogonal [ɔː'θɒgənl], *orthogonal, polynôme orthogonaux, matrice orthogonale*

Orthonormal basis, *une base orthonormée*

Orthonormal, *orthonormé-e*

Orthonormalization Orthonormalisation**,** *Orthonormalisation*

Gram–Schmidt orthonormalisation

Otherwise ['ʌðəwaɪz] adverb, *autrement*

Otherwise ['ʌðəwaɪz], *sinon*

Over ['əʊvəʳ], *sur*

P

pair [pɛəʳ], *couple*

Parameter [pə'ræmɪtəʳ], Mathematics, *paramètre* m

part [pɑːt], *partie* f

Partial ['pɑːʃəl], *partiel*

partial derivative *dérivée partielle*

Partial Differential Equations

partial sum *somme partielle*

partial sum *somme partielle*

Particular [pə'tɪkjʊləʳ], *particulier, particulière*

Partition [pɑː'tɪʃən], *partition, Partition theory is the hardest branch of number theory*

path [pɑːθ], *chemin* m

PDE [piː diː iː]**,** Partial Differential Equations, *EDP*

perfect ['pɜːfɪkt] adjective *parfait* *there is a hard problem with odd perfect numbers*

Plagiarism ['pleɪdʒjərɪzəm] noun *plagiat* m

plane [pleɪn;], Mathematics, *plan* m

Plus [plʌs], *plus*

PMI Principle of Mathematical Induction

Polar ['pəʊlər], *polaire* adj

Polynomial [ˌpɒlɪ'nəʊmɪəl], *polynôme* m

Polynomial interpolation, *polynôme et interpolation*

Positivity, *positivité.*

Potential [pəʊ'tenʃəl], adjective, Mathematics, *potentiel.*

Power ['paʊər], *puissance* f

powerful ['paʊəfʊl] adjective 108 is a powerful number, *puissant* adj

pre... [priː] prefix *pré...*

Previous ['priːvɪəs], *précédent* , look the previous formula.

Prime [praɪm], Mathématique, *prime*, *f* **prime** : *f prime*

Prime [praɪm], *premier*

prime number, *un nombre premier, 2, 3,5,7,11,13,....*

Primitive ['prɪmɪtɪv], The primitive root of a, *primitif* m

Principle ['prɪnsəpl], *principe* m

Probability [ˌprɒbə'bɪlɪtɪ], *probabilité* f

Problem ['prɒbləm], *problème* m

process ['prəʊses] *processus* [m]

Product ['prɒdʌkt], *produit* [m]

progression [prə'greʃən] noun; in general, Mathematics *progression* [f] **arithmetic progression,** *progression arithmétique* **geometric progression,** *progression géométrique*

Proof [pruːf], démonstration [f], *preuve* [f]

Property ['prɒpətɪ], *propriété* [f]

proposition [ˌprɒpə'zɪʃən], *proposition*

prove [pruːv], *prouver , démontrer*

Prove that, *prouver que, montrer que, démontrer que*.

provided that *à condition que*

pseudo- ['sjuːdəʊ] prefix *pseudo-*

pure [pjʊəʳ] adjective *pur-e*

purpose ['pɜːpəs], *but* [m], *objet* [m]

Q

Quadratic [kwɒ'drætɪk], *quadratique* [adj]

Quadratic forms, *formes quadratiques*

Quadrature ['kwɒdrətʃəʳ], *quadrature* [f]

Quantity ['kwɒntɪtɪ], *quantité* [f]

Quasi- ['kweɪzaɪ], *quasi-, norms and quasi-norms*

Question ['kwestʃən], *question* [f]

Quotient ['kwəʊʃənt], Mathematics, *quotient* [m]

R

R. H.S. [= right hand side] *terme de droite*

Radius ['reɪdɪəs] noun, pl **radiuses** , *rayon* [m]

Range [reɪndʒ], the range of f, *L'image = f(E)*, the value of f

Rank [ræŋk], *le rang*

ratio ['reɪʃɪəʊ] noun, *rapport* [m] *raison*

rational number ['ræʃənl], *un nombre rationnel*

Real [rɪəl], Mathematics, *réel*

Real numbers denoted by $\mathbb{R}$, *On note par $\mathbb{R}$ l'ensemble des nombres réels*.

real-valued function *fonction à valeurs réelle*

reasoning ['riːznɪŋ], *raisonnement* [m]

recall [rɪ'kɔːl]

Recall that, *rappelons que*

Reciprocal [rɪ'sɪprəkəl], *réciproque*, *inverse*

Reduction [rɪ'dʌkʃən], *réduction* [f]

Reduction of a quadratic form to a sum of squares

Reference ['refrəns], *bibliographie* [f], *référence* [f]

reflexive [rɪ'fleksɪv], Mathématique, *réflexif* , *-ive*

Regular ['regjʊlə^r], *régulier*

Relation [rɪ'leɪʃən], *relation*

relatively prime *premiers entre eux*

remainder [rɪ'meɪndə^r], *reste* [m]

Remark [rɪ'mɑːk], *remarque* [f]

representation [ˌreprɪzen'teɪʃən], *représentation* [f]

research [rɪ'sɜːtʃ], *recherche(s)* [f(pl)]

Residue ['rezɪdjuː], *résidu* [m]

Resolvable [rɪ'zɒlvəbl] adjective *résoluble*

Resolve [rɪ'zɒlv], *résoudre* [v]

respectively [rɪ'spektɪvlɪ], resp. *respectivement*

Rest [rest], *le reste* [m]

restriction [rɪ'strɪkʃən] *restriction* [f], *limitation* [f]

Result [rɪ'zʌlt], *résultat* [m]

Riemannian geometry noun *géométrie* [f] *riemannienne*

Riemannian, *riemannien*

Right angle *angle droit*

Ring [rɪŋ], *anneau* [m]

Root [ruːt], Mathematics, *racine* [f] Simple root, *racine simple*, double root *racine double*, triple root *racine triple*, multiple root *racine multiple*, root of multiplicity m *racine de multiplicité m*

root of multiplicity m *racine de multiplicité m*

Row [rəʊ], *ligne* [f]

row vector *vecteur ligne*

Rule [ruːl], *règle* [f]

S

Said [sed], A sequence is said to be Cauchy if, *Une suite est dite de Cauchy, si*

Sample ['sɑːmpl], *échantillon* [m]

Scalar ['skeɪlə^{r}] Mathematics, *scalaire* ^{m,adj}

Scalar product, *Produit scalaire*

Section ['sekʃən], *section* ^{f}, *partie* ^{f}

Self-adjoint [self], *autoadjoint* (*opérateur*)

Semi- ['semɪ], *semi-*, seminorm, *semi-norme*

Separability, *séparabilité*

Separable ['sepərəbl], *séparable* ^{adj}

Separation [ˌsepə'reɪʃən], *séparation*

Sequence ['si:kwəns], *suite* ^{f}

Series ['sɪərɪz], Mathematics, *série* ^{f}, *suite* ^{f}

seriously ['sɪərɪəslɪ] adverb *sérieusement, avec sérieux*

Set [set], *collection* ^{f}, *ensemble* ^{m}

Set of *n-th* **degree polynomials,** *L'ensemble des polynômes de degré n.*

Setting ['setɪŋ]

Setting ['setɪŋ], *posons, on pose*

Several ['sevrəl], *plusieurs*, **several variables,** *plusieurs variables*

Show that [ʃəʊ], *montrer que*

Sign [saɪn], *le signe* ^{m}

Similar ['sɪmɪlə^{r}], *semblable* ^{adj}

Similar matrices, *matrices semblables*

similarly ['sɪmɪləlɪ] adverb, *de la même façon, de façon similaire*

Similarly, we have, *de la même façon, on a*

Simplification [ˌsɪmplɪfɪ'keɪʃən], *simplification* f

Simultaneous [ˌsɪməl'teɪnɪəs], *simultané*, *simultanément*

Simultaneous nonlinear equations

since [sɪns], *comme, puisque*

Since f is linear, comme f est linéaire

Sine [saɪn], *sinus*, **sine x,** *sinus x*

situation [ˌsɪtjʊ'eɪʃən] noun *situation* f

skew [skjuː], *anti-*

skew-symmetric, *anti-symétrique*

Solution [sə'luːʃən], *solution* f

Solution of systems of linear equations

solve [sɒlv], *résoudre* v

Some [sʌm], some examples, *quelques exemples*

Space [speɪs], un espace

Special ['speʃəl], *spécial, particulier*

Special matrices

Spectral ['spektrəl], le *rayon spectral*

Spectral analysis, *Analyse spectrale*

Spectre, **specter** US ['spektəʳ], *spectre* m

Square [skwɛəʳ], *carré* m

Square matrix of order *n*, *matrice carrée d'order n*.

Squarefree numbers, *libre de carrés*

Standard ['stændəd], standard,

Standard basis, *la base canonique*

Step [step], *étape*, two steps, *deux étapes*

Strictly ['strɪktlɪ], *d'une manière stricte*

strictly increasing function *fonction strictement croissante*

Strictly less than, *strictement inférieur-e à*

strictly monotone function *fonction strictement monotone*

Strong [strɒŋ], *fort* adj

Strong convergence and weak convergence

Structure ['strʌktʃəʳ], *structure* f

Study ['stʌdɪ], *étude* f

Sub [sʌb], *subsequence, subspace, ..., sous-suite, sous-espace, ...*

subgroup ['sʌbgruːp], *sous-groupe* m

subgroup ['sʌbgruːp], *sous-groupe* m

subject ['sʌbdʒɪkt]

Subsequence, *sous-suite* f

Subsequent ['sʌbsɪkwənt], in the subsequent chapters.

subset ['sʌb,set], *sous-ensemble* m

Subspace ['sʌb, speɪs], *sous-espace* m

Subspecies ['sʌb,spiːʃiːz] pl **sous-espèce** f

substitution [,sʌbstɪ'tjuːʃən], *remplacement* m, *substitution* f

subtract [səb'trækt] verb *soustraire*

Successive [sək'sesɪv] adjective *successif*

Successive [sək'sesɪv], *successive itérations*.

Such that, *tel que, tels que, telle que, telles que*

Sufficient [sə'fɪʃənt], *suffisant* adj Sufficient condition

Summation [sʌ'meɪʃən], *addition* f

Sup [sʌp], *sup, maths,* supérieur, **the sup of A**, *le sup de A*

superior [sʊ'pɪərɪəʳ]

surface ['sɜːfɪs] *surface* f

Surjective [sɜː'dʒektɪv], *surjectif* adj

Symmetric [sɪ'metrɪk], Mathematics, *symétrique*

Symmetric positive definite matrices

Symmetrically [sɪ'metrɪkəlɪ] adverb *symétriquement, avec symétrie*

Symmetry ['sɪmɪtrɪ] noun *symétrie* f

System ['sɪstəm], *système* m

T

Table ['teɪbl], *tableau* m, *liste* f

tangent ['tændʒənt] noun, Mathematics, *tangente* f

TD [tiː'diː], abréviation de *travaux dirigés* (Université)

Technique [tek'niːk], *technique* f

tend [tend]

The dimension of a vector space

The intersection of S and T , the union of S and T.

the Laplace operator *opérateur de Laplace*

The set of .....such that, *{The set of ... such that...}*, *L'ensemble de ...tel que*

theme [θiːm], *thème* [m], *sujet* [m]

Theorem ['θɪərəm], *théorème* [m]

theoretician [ˌθɪərə'tɪʃən] **theorist** ['θɪərɪst] noun

Theory ['θɪərɪ], *théorie* [f]

Therefore ['ðɛəfɔːr], *donc, par conséquent*

This means, *c'est-à-dire*

PhD [ˌpiːeɪtʃ'diː] Univ abbreviation of *Doctor of Philosophy* = qualification *doctorat* [m] to have a PhD in ... : *avoir un doctorat de ...*

throughout [θrʊ'aʊt] preposition, *partout dans*

Times [taɪmz], *multiplier, fois,* **3 times 4,** *3 foie 4*

To present, to show, to prove, ...

Topologic [ˌtɒpə'lɒdʒɪk], **topological** [ˌtɒpə'lɒdʒɪkəl], *topologique* [adj]

Topological space, *espace topologique* [adj]

Topology [tə'pɒlədʒɪ], *topologie* [f]

total ['təʊtl]

Trace [treɪs], *la trace* [f]

Trace, the trace of a matrix, *la trace d'une matrice*

Transcendental [ˌtrænsen'dentl], *transcendant*

Transcendental number, *un nombre transcendant*

transformation [ˌtrænsfə'meɪʃən] noun Mathematics, Physics, Linguistics **transformation** [f]

Transitive ['trænzɪtɪv] , *transitif* [adj]

Transpose [træns'pəʊz], *transposer*

Transpose, *A* **transpose,** *A transposée*

Triangle ['traɪæŋgl], *triangle* [m]

Triangle inequality, *inégalité triangulaire*

Triangular [traɪ'æŋgjʊlə^{r}], *triangulaire* [adj]

Tridiagonal matrices

tridimensional [ˌtraɪdɪ'menʃənl], *tridimensionnel, à trois dimensions*

Trigonometric formulae, *formules trigonométriques*

Trigonometric, [ˌtrɪgənə'metrɪk], **trigonometrical** [ˌtrɪgənə'metrɪkəl], *trigonométrique, série trigonométrique*

trilinear form, *forme trilinéaire*

triple ['trɪpl], *triplet*

Trivial ['trɪvɪəl], *trivial, -e*, mpl *-iaux*

Twice [twaɪs], *deux fois*

twice differentiable function *fonction deux fois dérivable*
***n*-times continuously differentiable function** *fonction n fois continument dérivable*

twin [twɪn], **twin primes,** *nombres premiers jumeaux*

U

Unbounded [ʌn'baʊndɪd], *illimité, non borné*

Unbounded operator, *opérateur non borné*

Uncountable ['ʌn'kaʊntəbl], *non dénombrable, the set of real numbers is not uncountable.*

understand [ˌʌndə'stænd] **understood**

Unicity, *unicité* [f]

Uniform ['juːnɪfɔːm], *uniforme*

Uniformly ['juːnɪfɔːmlɪ], *uniformément*, a map uniformly continuous, *application uniformément continue.*

Union ['juːnjən], *union*

Unique [juː'niːk], *unique* [adj]

uniquely [juː'niːklɪ] adverb

Uniqueness [juː'niːknɪs], *unicité* [f]

Unit ['juːnɪt], *unité* [f]

Unitary ['juːnɪtərɪ], *matrice unitaire, groupe unitaire, application unitaire*

Unknown ['ʌn'nəʊn], *inconnu* [adj]

Unlimited [ʌn'lɪmɪtɪd], *illimité* [adj]

unresolved ['ʌnrɪ'zɒlvd] = unsolved, problem, *non résolu*

Upper ['ʌpəʳ], upper bound, *la borne supérieure*

Upper triangular matrix, *matrice triangulaire supérieure*

Using integration by parts gives,

Using the last equation gives

Using theorem 1.2, *En utilisant le théorème* 1.2,

usual ['juːʒʊəl]

V

Value, values ['væljuː], *valeur* [f]

Variable ['vɛərɪəbl/], *variable*

Variation [ˌvɛərɪ'eɪʃən], *variation* [f]

variety [və'raɪətɪ] noun *variété* [f]

Various ['vɛərɪəs] *différent*

Vect ['vekt] *Vect*

Vector ['vektəʳ], Mathematics, *vecteur* [m]

vector space of dimensi on *n*, *espace vectoriel de dimension n*

Vector space, *un espace vectorial ou un espace vectorial normé*

vector subspace, *sous-espace vectoriel*

verification [ˌverɪfɪ'keɪʃən] = check, *vérification* [f],

viewpoint ['vjuːpɔɪnt], *point* [m] *de vue*

Volume ['vɒljuːm], noun, *volume* [m]

W, Z, X

Wave [weɪv], wave equation, *équation des ondes*

We denote by , *on note par*

We distinguish two cases, *On distingue deux cas*

We have, we've, *on a, nous avons*

We obtain, *on trouve*

We put, Put, Setting, *posons, on pose*

We see that, *on voit que*

weak [wiːk], *faible*, weak convergence

Weak topology, *la topologie faible*

whatever [wɒt'evəʳ]

whence [wens] conjunction *d'où*

Whence, hence, therefore, and hence [wens], *d'où*

where, where *p* is an odd prime, *où*

whereas [wɛər'æz] conjunction = while *alors que, tandis que*

whereby [wɛə'baɪ] pronoun par quoi, par lequel (or laquelle etc), au moyen duquel (or de laquelle etc)

whether ['weðəʳ], *si* **which** [wɪtʃ] **whichever** [wɪtʃ'evəʳ]

while [waɪl] = during the time that *pendant que*

whole [həʊl] adjective = entire *tout, entier*

whose [huːz] possessive pronoun *à qui*

with respect to [= w.r.t.], *par rapport à*

wlog = without loss of generality

Work [wɜːk], *travail, in this work we prove that ...., dans ce travail montrons que .....*

X, *x* [eks], *x* to the power *n*, *X to the n*, *X à la puissance n*.

zero ['zɪərəʊ], pl **zeros** or **zeroes** noun *zéro* m

zeta *zeta* zeta function