

Index

- T_EX**
 - compiling a file in, 190
- abbreviations, 20
- abstract
 - how to write, 68
 - notation in, 68
 - of paper, 59
 - references in, 68
 - simplicity of, 68
- accuracy, 21
- acronym, 20
 - use of in bibliographic references, 71
- adjectives, 45
- Adobe **Illustrator**, 192, 196
- adverbs, 45
- affiliation
 - of author, 58
 - on work, 25
- Agnew, S., 11
- “All,” “Any,” “Each,” “Every”, 31
- alliteration, 11, 12
- altagraphics, 224
- “alternate” vs. “alternative”, 46
- Amazon**, 139, 225
- AMS**
 - Book Award, 86
 - Standard Cover Sheet, 136
- AMST_EX**, 185
- Ann Arbor, Michigan, 211
- article processing charge, 199
- arXiv**, 195, 207
 - and **T_EX**, 209
 - publisher policy towards, 210
 - publishing with a pointer to, 208
 - removing posting from, 208
 - search on, 208
 - statistics on the use of, 207
 - use of, 208
 - use of **T_EX** in, 209
 - use of graphics in, 209
- ASCII** code, 157, 184, 186
- assessing your work, 75
- audience, 2
- author
 - disputes, 84, 85
 - mutual respect of, 84
 - name, 58
- backups
 - importance of, 179
 - significance of, 179
 - to a mass storage device, 180
- Baez, J., 215
- Beamer**, 124
- Beckenbach Prize, 86
- bibliographic
 - database, 195
 - reference, unacceptable, 72
 - references, 27
 - references in **L^AT_EX**, 71
 - style, for a book, 70
 - style, for a paper, 70
- bibliography, 27
 - how to write, 69
 - style of, 70
- big words vs. small words, 16
- Black, F., 187
- Black/Scholes option pricing scheme, 187
- blackboards, 124
- blogs, 215
 - advantages of, 216

- creating your own, 217
 - topics, 216
 - topics for, 216
 - vs. social networking sites, 215
- *.bmp
 - format, 192
 - graphics images, 197
- book
 - accuracy in, 163
 - advertising of, 170
 - annoyances with the publisher off, 169
 - appendices in, 158
 - based on lecture notes, 152
 - bibliography for, 158
 - components of a good, 150
 - contents of contract for, 170
 - contract for, 170
 - cost of hardcover vs. paperback, 168
 - cost of producing, 166, 167
 - effort to write, 150
 - front matter for, 154
 - galley proofs for, 156
 - glossary for, 161
 - going into production, 165
 - handwritten manuscript for, 179
 - how to read reviews of, 163
 - how to respond to reviews of, 163
 - information for the publisher, 162
 - level of, 152
 - making an index for, 156
 - making index using L^AT_EX, 157
 - marketing of, 167
 - Marketing Questionnaire for, 169
 - math, 149
 - method for writing, 150
 - negotiating the contract for, 170
 - ordering material, 151
 - organization of, 151
 - outline of, 150
 - page proofs for, 156
 - planning of, 152
 - Preface for, 154, 155
 - preface for, 154
 - production in the computer age, 156
 - production of, 156, 166
 - production using L^AT_EX, 157
 - promotion of, 170
 - repro copy for, 166
 - review, check list for, 113
 - review, how to write a, 113
 - review, negative, 114
 - review, positive, 114
 - review, what should be in a, 113
 - reviewers hired by publisher, 163
 - revising the manuscript, 160
 - revision of manuscript, 164
 - revision vs. writing anew, 161
 - royalty for, 170
 - shooting of, 167
 - signatures in, 167
 - spiral method for writing, 160
 - submitting to a publisher, 161
 - Table of Contents for, 154, 155
 - Table of Notation for, 161
 - time management while writing, 158
 - TOC for, 154
 - tunnel vision when writing, 159
 - website for, 201
 - what to send the publisher, 162
 - writer's block while writing, 159
 - writing of a, 94
 - written in collaboration, 153
- book production
 - the old-fashioned way, 223
- Book1One, 224
- books about T_EX, 195
- brevity, 32
- British English, 18
- Casazza, P., 195, 196
- Cell Reports*, 199
- central processing unit, 197
- cf., 38
- chat rooms, 215, 217
- Chauvenet Prize, 86
- choice of words, 18
- citation

- styles, 73
- citations
 - number of, 213
 - on-the-fly, 73
 - Princeton style, 73
- CiteSeerX, 212
- claim
 - use of, 64
- “clearly”, 39
- click and jump, 198
- Cloud
 - backing up to, 180
 - backup to, 180
 - free access to, 181
- clutter on desk, 28
- collaboration
 - as adventure, 84
 - by email, 201
 - complications with mass, 216
 - distance, 213
 - etiquette, 85
- collaborative work, 83
- collaborators, number of, 213
- Colombia, 196
- colored pens, 27
- commas, overuse of, 29
- comment sections, 222
- comments
 - in T_EX, 201
 - in a T_EX document, 201
- communicating author, 79
- communication skills, 139
- “compare” and “contrast”, 47
- computer, 206
 - advantages of writing with, 177
 - backups, 179
 - disadvantage of writing with, 179
 - editing on a, 176, 177
 - writing with a, 176
- Computer Modern font, 194
- Conant Prize, 86
- concentration, 28
- confidence, 2
- contractions, 33
 - use of, 18
- copyright, 145
 - duration of, 146
 - law, 146
 - limitations, 146
 - to you, 209
 - transfer, 209
- Corel DRAW, 192, 196
- cover letter
 - sample of, 138
 - what to include in a, 137
- CPU, 197
- CreateSpace, 225
- creating a web page using Word, 214
- Creative Commons, 146
 - license, 146
- Crisp, 184, 185
- damning with faint praise, 100
- date
 - of creation in file name, 178
 - on paper, 58
 - on work, 25
 - stamp, 178
- deferred proof, 64
- definitions
 - how many to include, 67
 - how many to supply, 66
 - how to state, 66
 - importance of, 66
 - placement of, 61
 - statement of, 66
 - use of “if and only if” in, 68
 - which not to include, 67
- Dennis, K., 211
- “denote”, 34
- desk supplies, 27
- detail, 11
- “different from” vs. “different than”, 47
- it Discrete Analysis, 208
- displayed
 - math vs. in-text math, 30
 - quotations, moving, 183
- document
 - multiple versions of, 178
- DropBox, 142, 202

- “due to” vs. “because” vs. “through”, 47
- Dyson, Freeman, 96
- e.g., 38
- EBM, 224
- Eclipse, 184
- editor, dealing with, 80
- Eisen, M., 199
- electronic books
 - available at no charge, 201
- electronic journals, 197, 198
 - archiving of, 200
 - startup, 198
- electronic mail
 - and conversation, 142
 - and the personal computer, 142
 - brevity in, 143
 - collaboration over, 201
 - collaboration via, 140
 - completeness of, 141
 - etiquette for, 141
 - forwarding of, 144
 - haste in, 142
 - signature to, 141
 - significance of, 140
 - uses of, 140
- electronic publishing, 197, 200
 - what is?, 207
- Electronic Research Archive for Mathematics, 211
- electronic-only journals, 200
- emacs, 185
- email, 201
- encyclopedias
 - free on the web, 206
- English ability of candidate, 110
- English, role of in mathematics, 19
- *.eps**
 - graphics images, 197
- *.eps** format, 192
- Epstein, J., 224
- Espresso Book Machine, 224
- Euler Book Prize, 86
- exposition
 - how to write, 89
 - importance of, 88, 95
 - level of difficulty in, 88
 - use of examples in, 89
 - what is, 88
- external drives, 177
- Facebook, 219, 220
- FaceTime, 202
- faddish prose, 18
- “farther” vs. “further”, 48
- figure
 - labels, 196
- figures
 - art of drawing, 196
 - captions for, 196
 - creating informative, 196
 - hand drawn, 196
 - software for creating, 197
- files
 - created on text editors, 185
 - finding and printing, 177
 - locating with pointers, 177
 - multiple versions of, 178
 - recovering erased, 177
- Flaubert, G., 22
- flippancy, 17
- floats in \TeX , 191
- Folland, G., 187
- followers, 222
- fonts
 - MathTime, 194
- Ford Award, 86
- foreign words and phrases, 17
- formatting commands
 - hidden, 183
- Franklin, B., 206
- free books on the Internet, 200
- friend, 222
- Front for the arXiv, 210
- ftp, 215
- galley proofs, return of, 82
- geometric measure theory, 62
- getCITED, 212
- GhostScript, 197
- given, 30

- Goethe, J., 22
- good
- sense, 48
 - taste, 48
- good writing
- appreciating, 228
 - difficulty of teaching, 228
 - hard work, 228
 - recognition of, 85
- Google, 206
- Google Scholar, 212
- database, size of, 212
- Gowers, T., 208, 216
- grants
- availability of, 132
 - credibility of your proposal for, 132
 - dissemination in, 134
 - page limitation for application, 133
 - program officer of, 134
 - proofreading of the proposal, 134
 - prospectus for, 132
 - self-evaluation in, 134
- graphics
- created with a computer, 196
 - creating, 192
 - creation of, 196
 - in \TeX , 191
- Grisham, J., 168
- groups, 222
- h-index, 212
- Halmos, Paul, 13, 21, 38, 52, 68, 160, 227
- hand drawing vs. *Mathematica* drawing, 197
- hard copy
- value of, 179
- hard drive
- finding files on, 177
- Hardy, G. H., 140, 202
- Harvard system for bibliographic references, 71
- hashtags, 222
- hence, 12
- hidden formatting commands, 183
- high-level computing language, 185
- Hirsch, J., 212
- homily, 9
- “hopefully”, 48
- HTML, 215
- Hugo, Victor, 28
- hyperlinks, 214
- hypertext, 197, 198
- i.e., 38
- i10-index, 212
- IBM Selectric typewriter, 206
- if and only if, 37
- if-then, 36
- iff, 38
- “if” vs. “whether”, 38
- importance of \TeX , 185
- index
- compiling a good, 157
 - entries which are not words, 157
 - making with \LaTeX , 157
 - subentries, 157
- indexers, professional, 158
- “infer” and “imply”, 38
- infinitives, splitting of, 49
- information updating, 222
- Inkscape, 192
- Instagram, 219
- Instructions
- for Submission, 78
 - to Authors, 69, 78
- intellectual property, 145
- “in terms of”, 49
- Internet, 197, 206
- impact on publishing, 206
- introvert vs. extrovert, 153
- intuitionistic ethics, 22
- IP address, 197
- Irving, J., 176
- “its’] and “it’s”, 38
- “I” vs. “we” vs. “one”, 18
- Jahrbuch über die Fortschritte der
Mathematik, 211
- jargon, 20
- job
- applying for a, 135

- cover letter for application, 135
- interview for, 137
- offer of a, 137
- short list for, 136
- talk given in candidacy for, 137
- teaching credentials for, 136
- what to include in the application
 - for a, 136
- journal
 - backlog of, 78
 - electronic, 198
 - ranking of, 78
 - selecting one for your paper, 77, 78
- Jury, M., 220
- kerning, 182
- key words, 59
- Knuth did not market $\text{T}_{\text{E}}\text{X}$, 194
- Knuth, D., 36
- Koch, R., 185
- Kuperberg, G., 210
- Lamport, L., 191
- language as a weapon, 8
- $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$, 25, 185
- ‘lay’ and ‘lie’, 39
- lemma
 - use of, 64
 - “less” and “fewer”, 39
- like buttons, 222
- linear ordering of written discourse, 7
- Littlewood, J. E., 140, 202
 - precepts, 116
- live collaboration vs. electronic collaboration, 202
- local computer vs. system computer, 201
- love letter, 2, 3
 - to your self, 60
- LyX, 193
- MacDraw, 196
- mailing out preprints, 206
- makeindex command, 157
- manipulative language, 8
- Maple, 197
- markup language, 183
- Marsh, J., 224
- math paper, components of, 58
- Mathematica, 193, 197
- mathematical collaboration
 - in the old days, 202
 - today, 202
- Mathematical Reviews*, 59, 211
 - number, 69
- mathematics indexing services, 212
- MathML, 182
- MathOverflow, 216
- Math Reviews*, 212
- MathSciNet, 58, 211, 213
 - searches, 213
- MathTime fonts, 194
- MathType, 182
- Metafont, 194
- Microsoft Word, 214
 - patches for, 182
- Mik $\text{T}_{\text{E}}\text{X}$, 184
- Mitter, E., 211
- modified Tower of Hanoi, 179
- modus ponendo ponens*, 36
- monospaced text, 182
- monospaced type, 182
- moving
 - formulas around, 194
 - theorems around, 194
- MR Subject Classification Numbers, 59
- Müller, F., 211
- n.b., 38
- name on work, 25
- National Institutes of Health, 198
- “need only”, 50
- Neller, D., 224
- Neugebauer, O., 211
- news feeds, 222
- NeXTstep, 185
- NIH, 198
- non-native speakers, 147
- Norton, P., 177
- Norton Utilities, 177
- notation, 23

- abuse of, 13
- at the beginning of a sentence, 13
- choosing, 68
- consistency of, 14
- good, 13
- importance of, 67
- overuse of, 12, 14, 15
- planning, 14
- unnecessary, 12
- use of, 13
- NotePad, 185
- notifications, 222
- numbering
 - pages, 25
 - schemes, 25
 - systems, 26
- numbers
 - and numerals, 39
 - use of in bibliographic references, 71
- obscure expressions, 6
- “obviously”, 39
- Ohrtmann, C., 211
- old-fashioned prose, 18
- Olivier, L., 21
- On Demand Books, 224
- one side of paper, writing on, 26
- Open Access, 198
 - gold, 199
 - green, 199
 - journals, 199
 - Libre, 199
- Open Knowledge Foundation, 147
- OpenOffice, 185
- opinion piece
 - arguments in, 92
 - conclusion of, 93
 - having something to say in an, 92
 - how to write an, 91
 - research for, 92
 - summation in, 93
 - thesis of an, 92
- organization, 21
- outline, importance of, 89
- overused words, 40
- paper
 - acknowledgment of receipt, 79
 - contents of, 60
 - cover letter for, 79
 - dealing with referee’s report, 80
 - first paragraph of, 60
 - galley proofs for, 82
 - how to submit, 76
 - how to write, 74
 - introduction to, 60
 - many versions of, 210
 - multiple copies of, 210
 - order of author names, 84
 - ordering material in, 60
 - organization of, 61
 - publishable, 74
 - referee of, 61
 - where to submit, 74, 76, 77
- parallel structure, 50
- participial phrases, 50
- passive voice, 24
- *.pdf, 190
- *.pdf
 - format, 192
 - graphics images, 197
- Peer, 199
- pen vs. pencil, 26
- Perelman, G., 207
- personal web page, 214
- personalization, 222
- PGF, 192
- PGS, 192
- photocopy machine, 206
- PLoS ONE*, 199
- plural forms of foreign nouns, 40
- polymath, 216
- position paper, research for, 92
- possessives, 41
- postal address of author, 58
- postcards to announce a new theorem, 206
- posting papers on arXiv, 209
- PostScript, 190, 197
- precise use of language, 6
- precision and custom, 41
- Preface

- as writing compass, 95
 - importance of the, 93
 - purpose of the, 93
 - questions that it answers, 93
 - what is a, 93
- prepositions, ending a sentence with, 51
- preprint servers, 206, 207, 210
 - as a device for getting the word out, 210
 - specialized, 207
- Preview**, 191
- primary sources, use of, 69
- print
 - quality, 183
- print-on-demand, 225
 - book machine, 224
 - books, 223
 - publishing, 225
- priority disputes, 84
- problems with hundreds of authors, 216
- profile pages, 222
- progress in mathematics, 75
- proof
 - by contradiction, 65
 - organizing, 61, 65
- proofreading, 21
- prose vs. mathematics, 30
- pseudo-proofs, 89
- ps graphics images, 197
- PSTricks**, 192
- publisher policy towards posting on **arXiv**, 210
- publisher's production group, 195
- PubMed Central*, 198, 199
- q.v., 38
- Quine, W. V. O., 15
- quotations, 52
- readership, 3
- recommendation letter, 98
 - binary comparisons in, 101, 102
 - brevity in, 112
 - declining to write, 109
 - describing scholarly work in, 101
 - enthusiasm in, 106
 - errors in, 105
 - for a non-research school, 105
 - for a student, 108
 - for your own Ph.D. student, 109
 - inflation in, 107
 - introductory paragraph, 99
 - mistakes in, 103
 - not writing, 99
 - professional, 98
 - reasons not to write, 98
 - scientific work described in, 101
 - significance of a negative, 105
 - specificity in, 101, 108
 - summation of, 100
 - things to say in, 103
 - truth in, 110
- Reddit**, 223
- redundancy, 53, 61
- referee
 - dealing with, 80
 - errors by, 80
 - thanking, 81
- referee's report
 - how to write a, 116
 - key points in, 117
 - keying to a given journal, 117
 - level of detail in a, 116
 - what to include in a, 116
- references, which to cite, 70
- repetition, 62
- repetitive sounds, 11
- repro copy, 166
- ResearchGate**, 221
- Riemann hypothesis, 75, 122, 133
 - proof of, xvii, 92
- Ross, H., 224
- rules of grammar, 30
 - flexibility of, 54
 - strictness of, 54
- run-on sentences, 23
- Saturday Night Live*, 66
- say something, 2
- Scholes, M., 187
- screen

resolution, 183
 self-publishing, 225
 sending files by email, 201
 sense, 21
 of audience, 94
 serial comma, 39
 Shakespeare, W., 22
 “shall” and “will”, 53
 Shishikura, M., 186
 short
 paragraphs vs. long paragraphs, 17
 sentences vs. long sentences, 36
 Sigvaldason, T., 224
 Simonyi, C., 181
 simple sentence
 structures, 17
 vs. complex sentence, 17
 singular constructions vs. plural, 16
 Smolens, M., 224
 so, 12
 social media, 219
 and mathematics, 220
 common features, 219
 in mathematics, 220
 variants of, 223
 vs. blogs, 222
 sound, 21
 and sense, 10, 12
 SoundCloud, 146
 spacing on page, 27
`\special` command, 197
 spell-checkers, 186
 foolish use of, 187
 for \TeX , 187
 spelling, 21
 Spillane, M., 168
 Spivak, M., 194
 fonts, 194
 status of your statements, 64
 Steele Prize, 86
 stopping places for reader, 30
 subject
 and object, 44
 and verb, agreement of, 41
 Subject Classification Numbers, 59
 “suffices to”, 50

sun spots, 200
 survey
 bibliography for, 90
 conclusion of, 89
 giving credit in a, 90
 how to write, 90
 imprecision in, 91
 purpose of, 91
 writing of, 89
 symbol manipulation software, 197
 TAA, 171
 Table of Contents
 importance of, 94
 role in the writing process, 94
 tagging
 formulas, 194
 theorems, 194
 talk
 apocryphal audience for a, 118
 blackboard use in, 125
 checklist for, 120
 conclusion of a, 119
 dreaming in, 121
 entry points, 122
 exit points, 122
 flexibility of a, 118
 focus of, 120
 giving credit in, 124
 how to give a, 117
 inflexibility of a, 118
 informality in, 122
 ingredients of a, 118
 mantra for, 123
 organization of, 119
 overhead slides in, 126
 preparation of, 123
 proofs in, 121
 specificity in, 121
 structuring of, 121
 time management in, 119, 123, 127
 time segments in, 119
 title of, 121
 types of, 120
 use of examples in, 119
 Tao, T., 215, 216

- teaching philosophy, statement of, 136
- technology and the bibliography, 58
- technoself studies, 219
- telephone tag, 141
- terminology as organizational tool, 67
- territorial rights, 145
- terseness, 22
- T_EX**, 176, 188
 - and text editors, 185
 - and word processors, 190
 - as a markup language, 183
 - comments in, 201
 - comments in a document, 201
 - files, compiling, 190
 - flexibility of, 191
 - graphics in, 191
 - is not a word processor, 188
 - kerning, 188
 - macros, 195
 - outputs, 193
 - portability of, 188
 - preview, 191
 - previewing, 191
 - sample code, 189
 - sample of, 190
 - spacing, 188
 - speed of, 193
 - the revelation that is, 188
 - to `*.pdf` direct, 193
 - use of dollar signs in, 190
 - Users Group, 195
 - variants of, 185
 - vs. **L^AT_EX**, 191
 - vs. word processors, 185, 188
 - what is, 188
- T_EXShop**, 186, 192
- Text and Academic Authors Association, 171
- text editor
 - customization of, 185
- text editors, 178, 184
 - advantages of, 178
- thanks to granting agencies, 59
- “that” and “which”, 53
- “then prove that”, 37
- theorem
 - how to prove, 64
 - how to state, 62
 - statement of, 61
 - stating in one sentence, 64
- “therefore”, 12
- “this” and “that”, 42
- TikZ**, 192
- title, importance of, 58
- “to be”, 46
- TOC, 94
- tone, 18
- Tower of Hanoi
 - rotation method, 179
- “trivially”, 39
- Trump, D., 219
- Tufte, E., 196, 197
- TUG, 185, 195
 - Newsletter, 195
- Tweet**, 220
- Twitter**, 219
- typesetting prose, 188
- user accounts, 222
- variants of the **T_EX** software, 185
- Varmus, H., 198
- Vietnam war, 11
- vita
 - honesty in, 130
 - importance of the, 128
 - parts of the, 129
 - references in, 135
 - sample of, 131
 - things not to include in a, 139
 - what not to include in a, 132
- walk in the woods, Halmos style, 13
- web pages, 214
 - as a professional document, 214
 - design, 214
 - in tableaux style, 214
 - layout, 214
 - personal, 214
 - professional, 214
 - to orient you towards Wikipedia, 218

- weblog, 215
- website to accompany a hard copy book, 201
- Wegner, B., 211
- Wermer, J., 118
- “we”
 - use of, 19
- what you write is copyrighted to you, 209
- when to stop writing, 8
- “where”, 43
- white boards, 124
- “who” and “whom”, 44
- wiki page, 217
- WikiMath, 218
- wiki page, 217
- Wikipedia, 206, 218
- wikis, 215
- Windows, 58, 178
- WinEdt, 184
- *.wmf
 - graphics images, 197
- word
 - order, 16
 - treated as an object, 15
- Word, 176
- word processors, 181
 - and graphics, 182
 - and mathematics, 182
 - communication with printer, 181
 - deficiencies of, 182
 - delete text, 181
 - features of, 181
 - fonts in, 182
 - global search and replace in, 182
 - insert text, 181
 - kerning in, 182
 - line breaks, 181
 - non-portability of, 184
 - non-universality of, 183
 - not for mathematics, 181
 - not satisfactory for mathematics, 182
 - not universal, 184
 - right justification in, 181
 - shortcomings of, 182
 - spell check in, 181
 - uses of, 181
- writer’s block, 7
- Writer2LaTeX, 192
- writing
 - a paper the old way, 206
 - and thought, 4
 - as yoga, 228
 - coaches, 147
 - environment, Windows, 176
 - file management during, 178
 - for Wikipedia, 218
 - form over substance in, 179
 - important of hard copy of, 179
 - in TeX, 176
 - large, 27
 - learning the art of, 228
 - mathematics vs. writing English, 28
 - old-fashioned methodology, 176
 - prizes, 86
 - the case for good, 228
 - the pleasure of, 228
 - using a text editor during, 178
 - with a pen on paper, 176
- WYSIWYG, 182, 183, 193
- WYSIWYM, 193
- Xulon Publishers, 224
- zbMATH, 211, 213
- Zelchenko, P., 224
- Zentralblatt für Mathematik, 211