INDEX INDEX 167

redundant test 33, 43, 46, 60, 124, 148, 150	storage overwriting 51, 85
redundant variables 113	structured design 77
reference outside array bounds 51, 85, 106,	structured programming 39 Strunk, W. xii
112	student grade program 88, 136
refinement, successive 41, 71 relational operators 20	style in pseudo-code 41
relational tests, rewriting 3, 31, 47	subconscious acceptance of comments 142
relative vs. absolute test 4, 8, 118	subroutines 13
repeated patterns 12, 13, 21, 43, 60	subscript, asterisk 88
revision, program 54, 155	subscript range checking 85
rewriting relational tests 3, 31, 47	SUBSCRIPTRANGE condition 85
right triangle program 118	SUBSTR function 10
robust code 29, 85, 96, 115	successive refinement 41, 71
rules, De Morgan's 21	tax computation program 58
rules for criticism 6	telephone test 21
run-time comparisons, sorting 133, 134,	temporary variable 11, 18, 24, 108, 124,
135	126
sandpiles, floating point numbers as 117	test, divisibility 53, 63, 91
scale factor, output 84	test, end of file 65, 88, 97
separate compilation 59	test, redundant 33, 43, 46, 60, 124, 148,
separate input function 65, 67, 71, 94, 150	150
Shell sort program 134	test, relative vs. absolute 4, 8, 118
Sieve of Eratosthenes 139	testing, boundary condition 112
$\sin(x)$ program 101, 119	testing, program 69, 101, 112, 116
Software Tools 39	tests, convergence 4, 8 tests, floating point equality 118, 120
sort, simple interchange 133 sorting, insertion 105	tests, rewriting relational 3, 31, 47
sorting program 5, 18, 56	text-centering program 50
sorting run-time comparisons 133, 134, 135	The Psychology of Computer Programming
sparse matrix program 22	142
special cases, avoiding 112, 126, 130, 131	THEN GOTO 17, 31, 47
square root, Newton's method for 4	THEN IF 44, 47
square root program 3, 8	timing package 135
Standard Fortran 6	top to bottom flow 25, 37, 39, 66, 76, 89,
statement, arithmetic IF 16, 131, 132, 145	108, 124
statement, BEGIN-END 31 statement, CASE 37	top-down design 41, 71 trapezoidal integration program 23, 62
statement, computed GOTO 17	triangle area program 84
statement, DO 34	triangle program 12
statement, DO-END 31	TRUNC function 63
statement, DO-WHILE 34	truncating integer division 1, 49, 53, 91,
statement, ELSE 32	128
statement, ELSE IF 37	truncation, floating point 4, 116, 118
statement, END= 86, 97	type conversion 12, 24
statement, GET DATA 94	type declaration, explicit 14, 153
statement, IF 17, 31 statement, indentation of ELSE IF 38, 147	type declaration, implicit 14, 104, 153 type, incorrect data 13
statement, logical IF 16, 17, 85	typographical error 5, 13, 15, 45, 48, 110,
statement, NAMELIST 94	125, 143
statement, null ELSE 18, 45, 47, 125	
statement numbering, random 5, 20, 84,	undeclared variable 24, 104 underflow 18, 102, 132
132, 145	uniform input format 92
statement, ON ENDFILE 65, 86, 88	uniform input formats 93
statements, grouping of 31	UNIX operating system xii
statements in Fortran, grouping of 32	unsafe variable names 15
statements, variables in FORMAT 51	