INDEX INDEX 165

format, program 146, 148, 150 FORMAT statements, variables in 51 format, uniform input 92 formats, uniform input 93 Fortran 77 6, 39, 97 Fortran, DO-WHILE in 36, 39, 87, 103, 131 Fortran, grouping of statements in 32 Fortran, IF-ELSE in 33, 39, 41, 124 Fortran preprocessors 39 Fortran, recursion in 77 Fortran verifier 7 Fortran with semicolons 18 free-form input 88, 93, 99, 138 function, AMAX1 8 function, AMIN1 9 function, AMIN1 9 function, ATAN 12 function, character input 97 function, FLOOR 49, 128 function, INDEX 10 function, SUBSTR 10 function, SUBSTR 10 function, TRUNC 63 functions, built-in 9, 10 functions, library 9	infinite loop 4, 73, 110, 115 information hiding 24, 62, 65 initialization with DATA statement 105 initialization with INITIAL attribute 105 initialize, failure to 101, 104, 125 input and output, centralized 97 input conversion program 99 input data, counting 86 input data, mnemonic 87, 90, 92 input data, plausible 84 input data, validating 84, 91, 150, 151 input format, Fn. 0 92 input format, uniform 92 input formats, uniform 93 input, free-form 88, 93, 99, 138 input function, separate 65, 67, 71, 94, 150 insertion sorting 105 instrumentation 135 integer division, truncating 1, 49, 53, 91, 128 integration program 120 interchange sort program 132 internal modularity 53, 95, 126 Knuth, D. E. 136 labels, mnemonic 85, 108, 145 lack of generality 3, 5, 9, 25
garbage in, garbage out 98 Gauss-Seidel iteration program 150 generality, lack of 3, 5, 9, 25 GET DATA statement 94 GOTO's and labels, avoiding 9, 17, 18, 19, 31, 35, 39, 108, 150 grouping of statements 31 grouping of statements in Fortran 32 hazards, numerical 4, 42, 118 hiding information 24, 63, 65	language features, non-standard 6 library functions 9 logarithm program 117 logical IF statement 16, 17, 85 logical operators, combining 20, 21 LOGICAL variables, comparing 19 loop done zero times 51, 109, 111, 112, 131 loop, indexed 34 loop, infinite 4, 73, 110, 115 loop, multiple exits from 48, 108, 150
hiding, information 24, 62, 65 identifying bad data 87, 91 identity matrix 1 IF, branches after 17, 31 IF statement 17, 31 IF-ELSE ambiguity 45 IF-ELSE in Fortran 33, 39, 41, 124 implicit type declaration 14, 104, 153 impossible condition 16, 37, 115 inaccessible code 20 incorrect comments 70, 88, 142, 143, 151 incorrect data type 13, 104 incremental construction 72 incrementation, floating point 13, 104, 116 indentation 20, 31, 32, 43, 146 indentation of ELSE IF statement 38, 147 indentation, random 18, 24 INDEX function 10 indexed loop 34 inefficient algorithm 5, 13, 49, 70, 116, 129	maintenance 10, 25, 123, 128, 155 making control flow explicit 35, 36, 104 marker, end of file 86 McCracken, D. D. xii median program 63 metal cost program 90 Mills, Harlan xii minimum depth decision tree 46, 53 minimum-computing program 9 mixed-mode arithmetic 6, 104 mnemonic input data 87, 90, 92 mnemonic labels 85, 108, 145 mnemonic variable names 11, 14, 15, 104, 144 MOD function 49, 53, 91, 128, 130 modularity, internal 53, 95, 126 modularization 60 modularization, appropriate 24, 62, 63, 77, 95, 150