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POINTS TO PONDER

8.1 Programming in a standard or stereotyped way is often a useful way to avoid error. For example, in Fortran, identifiers that begin with I, J, K, L, M, or N are integer by default, and all others are floating point. This convention is widely used. Sometimes, however, to avoid straining for meaningful identifiers, it seems easier to declare variables explicitly, overriding the default. From the standpoints of error potential and reader comprehension, is this good practice or bad? You might consider this excerpt in your deliberations:

- 8.2 Fortran continuation lines are often left behind when statements are moved within a program. What practices can you think of, in writing multi-line statements, that would reduce the likelihood of your making this mistake (or at least ensure that the compiler will spot your error)? Look back over the Fortran programs in this book.
- 8.3 Comment on these comments:

```
DO 65 L=1,9999
С
         GENERATE RANDOM NUMBER
41
      CALL RANDU(IX, IY, YFL)
         SET NEW VALUE OF IX TO VALUE OF IY
С
      IX=IY
         COMPUTE SAMPLE WHICH IS TO RECEIVE BACTERIA
С
      N=YFL*100.0 +1.0
С
         CHECK TO SEE IF N IS 101
      IF(N-101) 40,41,40
         CHECK TO SEE IF SAMPLE ALREADY CONTAINS BACTERIA
С
40
      IF(IT(N) )21,20,21
         INCREMENT NUMBER OF SAMPLES CONTAINING BACTERIA BY ONE
С
20
      ICT=ICT+1
         INCREMENT NUMBER OF BACTERIA IN SAMPLE BY ONE
C
21
      IT(N) = IT(N) + 1
         CHECK TO SEE IF 50 OF THE SAMPLES CONTAIN BACTERIA
С
      IF(ICT-50)65,33,33
65
      CONTINUE
```