

```

C      TEST FOR NEGATIVE VALUE OF X.
      IF(XST) 5,5,3
      ...
5 PRINT 11
11 FORMAT(1H041HTHE VALUE OF X MUST BE GREATER THAN ZERO.)

```

the comment is certainly not correct, even assuming that *X* refers to *XST*. Fortunately this case is sufficiently obvious that it is not likely to mislead.

The more common situation is that the comment is correct but the code it describes is not:

```

      /* THIS TIME WE SHALL TEST FOR      */
      /* ODD NUMBERS.                      */
IF MOD(X,2)=0 THEN
DO; SUM = SUM + X;
ODDNO = ODDNO + 1;
END;

```

The comment tells us that we are testing for odd numbers, the name *ODDNO* encourages us to believe it, but the test still selects *even* numbers.

The trouble with comments that do not accurately reflect the code is that they may well be believed subconsciously, so the code itself is not examined critically. A programmer shaky in his understanding of the *MOD* function might accept this comment at face value, especially since the mnemonic identifier *ODDNO* provides confirmation. (To avoid this subconscious acceptance, in *The Psychology of Computer Programming* Weinberg suggests that comments should be written on the right side of the page and code on the left, so the comments can be *covered* during debugging.)

Make sure comments and code agree.

Comments should also convey new information:

```

C      NEXT TWO STATEMENTS TEST FOR XMAX, IF LESSTHAN 10**-8,GO TO 1000
C
      EPSI=1.E-8
      IF(XMAX.LE.EPSI) GO TO 1000

```

This contains the same boundary error we saw above — the branch on equality is not what the comment says it is. But even if the comment were true, it would be useless. A meaningful comment would explain the reason for the test instead of merely repeating it in words. Avoid empty remarks like

```

      K13 = K13 + 1;    /* INCREMENT COUNTER */

```

and

```

C      PRINT VALUE OF VOLTAGE
50 WRITE(6,60) V

```

and

```

      ON ENDFILE(SYSIN) GO TO DATA_ERROR; /* TEST END-OF-FILE */

```

and