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1  IDENTIFICATION DIVISION.
2  PROGRAM-ID. conv.
3  ENVIRONMENT DIVISION.
4  INPUT-OUTPUT SECTION.
5  FILE-CONTROL.
6      SELECT STANDARD-OUTPUT ASSIGN TO DISPLAY.
7
8  DATA DIVISION.
9  FILE SECTION.
10 FD STANDARD-OUTPUT.
11     01 STDOUT-RECORD  PICTURE X(80).
12
13 WORKING-STORAGE SECTION.
14 77  I    PICTURE S99 USAGE IS COMPUTATIONAL.
15 77  PREV PICTURE S9(8) USAGE IS COMPUTATIONAL.
16 77  D    PICTURE S9(4) USAGE IS COMPUTATIONAL.
17 01 ERROR-MESS.
18     02 FILLER PICTURE X(22) VALUE ' ILLEGAL ROMAN NUMERAL'.
19
20 LINKAGE SECTION.
21 77  M    PICTURE S99 USAGE IS COMPUTATIONAL.
22 77  ERR  PICTURE S9 USAGE IS COMPUTATIONAL-3.
23 77  SUM1 PICTURE S9(8) USAGE IS COMPUTATIONAL.
24 01  ARRAY-AREA.
25     02 S PICTURE X(1) OCCURS 30 TIMES.
26
27 PROCEDURE DIVISION USING ARRAY-AREA, M, ERR, SUM1.
28     MOVE ZERO TO SUM1. MOVE 1001 TO PREV.
29     PERFORM LOOP THRU END-LOOP VARYING I FROM 1 BY 1
30        UNTIL I IS GREATER THAN M.
31     MOVE 1 TO ERR. GO TO B8.
32 LOOP.
33     IF S(I) IS NOT EQUAL TO 'I' GO TO B1.
34     MOVE 1 TO D. GO TO 3.
35 B1. IF S(I) IS NOT EQUAL TO 'V' GO TO B2.
36     MOVE 5 TO D. GO TO 3.
37 B2. IF S(I) IS NOT EQUAL TO 'X' GO TO B3.
38     MOVE 10 TO D. GO TO 3.
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39 B3. IF S(I) IS NOT EQUAL TO 'L' GO TO B4.
40     MOVE 50 TO D. GO TO 3.
41 B4. IF S(I) IS NOT EQUAL TO 'C' GO TO B5.
42     MOVE 100 TO D. GO TO 3.
43 B5. IF S(I) IS NOT EQUAL TO 'D' GO TO B6.
44     MOVE 500 TO D. GO TO 3.
45 B6. IF S(I) IS NOT EQUAL TO 'M' GO TO B7.
46     MOVE 1000 TO D. GO TO 3.
47 3.  ADD D TO SUM1.
48     IF D IS GREATER THAN PREV
49        COMPUTE SUM1 = SUM1 - 2 * PREV.
50 END-LOOP. MOVE D TO PREV.
51 B7. OPEN OUTPUT STANDARD-OUTPUT.
52     WRITE STDOUT-RECORD FROM ERROR-MESS AFTER ADVANCING 1 LINE.
53     MOVE 2 TO ERR. CLOSE STANDARD-OUTPUT.
54 B8. GOBACK.
55
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