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1  0→DimZ:
2  27→DimZ:
3  0→A:
4  "ENTER -1 AFTER  LAST INPUT":
5  While 1:
6    "NUMBER"?→B:
7    B=-1⇒Break:
8    If B≠Int(B):
9      Then Cls:
10     "NUMBER MUST BE  AN INTEGER":
11     Stop:
12   IfEnd:
13   If B<1 Or B≥1x1010:
14     Then Cls:
15     "NUMBER MUST BE  >0 And <1x1010":
16     Stop:
17   IfEnd:
18   A+1→A:
19   If A≤27:
20     Then B→Z[A]:
21   Else Cls:
22     "SUPPORTS AT MOST27 NUMBERS":
23     Stop:
24   IfEnd:
25 WhileEnd:
26 If A<2:
27   Then Cls:
28   "REQUIRES 2 OR  MORE NUMBERS":
29   Stop:
30 IfEnd:
31 A→D:
32 Z[D]→B:
33 For D-1→A To 1 Step -1:
34   B→E:
35   Z[A]→C:
36   While B≠C:
37     If B≥C:
38       Then B-C×Int(B÷C)→B:
39       B=0⇒C→B:
40     Else C-B×Int(C÷B)→C:
41     C=0⇒B→C:
42   IfEnd:
43 WhileEnd:
44 If E≥Z[A]:
45   Then (E÷B)×Z[A]→B:
46 Else (Z[A]÷B)×E→B:
47 IfEnd:
48 If B≥1x1010:

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49   Then Cls:
50   "OVERFLOW":
51   Stop:
52   IfEnd:
53 Next:
54 Int(D÷3)→E:
55 D-3×E>0⇒E+1→E:
56 1→C:
57 Lbl 1:
58 Cls:
59 Locate 1,1,B:
60 Locate 12,1,C:
61 Locate 13,1,"":
62 Locate 14,1,E:
63 3×(C-1)+1→A:
64 Locate 1,2,Z[A]:
65 A+1≤D⇒Locate 1,3,Z[A+1]:
66 A+2≤D⇒Locate 1,4,Z[A+2]:
67 While 1:
68   Getkey→F:
69   If F=34 Or F=73:
70     Then Cls:
71     "DONE":
72     Stop:
73   IfEnd:
74   If F=84 Or F=86 Or F=77 Or F=47:
75     Then C+1→C:
76     C>E⇒1→C:
77     Goto 1:
78   IfEnd:
79   If F=83 Or F=85 Or F=67:
80     Then C-1→C:
81     C<1⇒E→C:
82     Goto 1:
83   IfEnd:
84 WhileEnd

```

### Program Outline

Lines 1–2: Set up memory for extra variables  $Z[\alpha]$  where  $\alpha \in [1, 27]$ .

Lines 3–31: User input of arguments for  $\text{LCM}(Z[1], \dots, Z[D])$ .  $D \in [2, 27]$ .

Lines 32–53: Evaluate  $B = \text{LCM}(Z[1], \dots, Z[D])$ . Uses  $\text{LCM}(\beta, \gamma) = (\beta \times \gamma) \div \text{GCD}(\beta, \gamma) = (\beta \div \text{GCD}(\beta, \gamma)) \times \gamma = (\gamma \div \text{GCD}(\beta, \gamma)) \times \beta$  and  $\text{LCM}(\beta, \gamma, \delta, \epsilon) = \text{LCM}(\text{LCM}(\text{LCM}(\beta, \gamma), \delta), \epsilon)$ .

Lines 54–84: Display result and inputs.

### **Variable Descriptions**

A: Index into extra variable memory.

B: User input and LCM evaluation.

C: LCM evaluation and number of displayed input argument page.

D: Number of input arguments.

E: LCM evaluation and number of input argument display pages (3 inputs per page).

F: Identifier of most recently pressed key.

### **Notes**

Lines 4, 10, 15, 22, and 28: The weird spacing prevents text wrapping from occurring in the middle of a word.

Lines 13 and 48: The fx-5800P can only represent numbers on the range  $[-1 \times 10^{10}, 1 \times 10^{10}]$  as exact integers.

Line 69: Pressing DEL (34) or EXIT (73) ends the program.

Line 74: Pressing ▲ (84), ► (86), + (77), or EXE (47) cycles to the next input argument display page.

Line 79: Pressing ◀ (83), ▼ (85), or – (67) cycles to the previous input argument display page.

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