Least Common Multiple with User Input for the Casio fx-5800P Calculator
https://github.com/slugrustle/fx-5800P_progs   Version 1

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:

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[α] where α∈[1,27].

Lines 3–31: User input of arguments for LCM(Z[1], ..., Z[D]). D∈[2,27].

Lines 32–53: Evaluate B = LCM(Z[1], ..., Z[D]). Uses LCM(β,γ) = (β×γ)÷GCD(β,γ) = (β÷GCD(β,γ))×γ = (γ÷GCD(β,γ))×β and LCM(β,γ,δ,ε) = LCM(LCM(LCM(β,γ),δ),ε).

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.