1 Minimize $F(x, y, z) = \Sigma(0, 1, 3, 4, 5)$ as a minimum sum of products.

\[
\begin{array}{cccc}
00 & 01 & 11 & 10 \\
0 & & & \\
1 & & & 
\end{array}
\]

2 Minimize $F(A, B, C, D) = \Sigma(0, 1, 2, 4, 6, 8, 9, 10)$ as a minimum sum of products.

\[
\begin{array}{cccc}
AB & 00 & 01 & 11 & 10 \\
CD & 00 & 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\
00 & 0 & 4 & 12 & 8 & \\
01 & 1 & 5 & 13 & 9 & \\
11 & 3 & 7 & 15 & 11 & \\
10 & 2 & 6 & 14 & 10 &
\end{array}
\]

3 Minimize $F(f, g, e, d) = \Sigma(0, 3, 4, 6, 13, 15) + d(1, 2, 7, 9, 11)$ as a minimum sum of products.

\[
\begin{array}{cccc}
00 & 01 & 11 & 10 \\
00 & & & \\
01 & & & \\
11 & & & \\
10 & & & 
\end{array}
\]
4 Minimize $F(A, B, C)=\Sigma(0, 4, 5, 7)$ as a minimum product of sums.

\[
\begin{array}{cccc}
00 & 01 & 11 & 10 \\
\hline
0 & & & \\
1 & & & \\
\end{array}
\]

5 Minimize $F(B, A, D, C)=\Pi(0, 2, 3, 8, 10, 11, 12, 13)$ as a minimum product of sums.

\[
\begin{array}{cccc}
00 & 01 & 11 & 10 \\
\hline
00 & & & \\
01 & & & \\
11 & & & \\
10 & & & \\
\end{array}
\]

6 Minimize $F(d, c, b, a)=\Pi(2, 3, 5, 6, 8, 11, 13)+d(0, 1, 9)$ as a minimum product of sums.