&gt; $tc := 0$ :**for** $h$ **from** 1 **to** 8 **do for** $e$ **from** 1 **to** 5  **do**  $P := e \cdot ithprime(h)$ : $c := 0$ :**for** $x$ **from** 1 **to** 50 **do for** $y$ **from** $x + 1$ **to** 50 **do for** $z$ **from** $y + 1$ **to** 50 **do if** $P = ithprime(x)$ $+ ithprime(y) + ithprime(z)$ **then** $c := c + 1$ : $tc := tc + 1$ : $print(\{e\}$ $\cdot ithprime(h)[\{h\} \, thp][tc] = ithprime(x)[\{x\} \, th \, p] + ithprime(y)[\{y\} \, th \, p]$ $+ ithprime(z)[\{z\} \, th \, p])$ **fi:if** $c = 1$ **then break if:od:if** $c = 1$ **then break if :od: if** $c = 1$ **then break if:od:od:od:**

$$\{5\} \left(2_{\{1\} \, thp}\right)_1 = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p}$$

$$\{4\} \left(3_{\{2\} \, thp}\right)_2 = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 7_{\{4\} \, th \, p}$$

$$\{5\} \left(3_{\{2\} \, thp}\right)_3 = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 7_{\{4\} \, th \, p}$$

$$\{2\} \left(5_{\{3\} \, thp}\right)_4 = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p}$$

$$\{3\} \left(5_{\{3\} \, thp}\right)_5 = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 7_{\{4\} \, th \, p}$$

$$\{4\} \left(5_{\{3\} \, thp}\right)_6 = 2_{\{1\} \, th \, p} + 5_{\{3\} \, th \, p} + 13_{\{6\} \, th \, p}$$

$$\{5\} \left(5_{\{3\} \, thp}\right)_7 = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 17_{\{7\} \, th \, p}$$

$$\{2\} \left(7_{\{4\} \, thp}\right)_8 = 2_{\{1\} \, th \, p} + 5_{\{3\} \, th \, p} + 7_{\{4\} \, th \, p}$$

$$\{3\} \left(7_{\{4\} \, thp}\right)_9 = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 13_{\{6\} \, th \, p}$$

$$\{4\} \left(7_{\{4\} \, thp}\right)_{10} = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 23_{\{9\} \, th \, p}$$

$$\{5\} \left(7_{\{4\} \, thp}\right)_{11} = 3_{\{2\} \, th \, p} + 13_{\{6\} \, th \, p} + 19_{\{8\} \, th \, p}$$

$$\{2\} \left(11_{\{5\} \, thp}\right)_{12} = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 17_{\{7\} \, th \, p}$$

$$\{3\} \left(11_{\{5\} \, thp}\right)_{13} = 3_{\{2\} \, th \, p} + 7_{\{4\} \, th \, p} + 23_{\{9\} \, th \, p}$$

$$\{4\} \left(11_{\{5\} \, thp}\right)_{14} = 2_{\{1\} \, th \, p} + 5_{\{3\} \, th \, p} + 37_{\{12\} \, th \, p}$$

$$\{5\} \left(11_{\{5\} \, thp}\right)_{15} = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 47_{\{15\} \, th \, p}$$

$$\{2\} \left(13_{\{6\} \, thp}\right)_{16} = 2_{\{1\} \, th \, p} + 5_{\{3\} \, th \, p} + 19_{\{8\} \, th \, p}$$

$$\{3\} \left(13_{\{6\} \, thp}\right)_{17} = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 31_{\{11\} \, th \, p}$$

$$\{4\} \left(13_{\{6\} \, thp}\right)_{18} = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 47_{\{15\} \, th \, p}$$

$$\{5\} \left(13_{\{6\} \, thp}\right)_{19} = 3_{\{2\} \, th \, p} + 19_{\{8\} \, th \, p} + 43_{\{14\} \, th \, p}$$

$$\{2\} \left(17_{\{7\} \, thp}\right)_{20} = 2_{\{1\} \, th \, p} + 3_{\{2\} \, th \, p} + 29_{\{10\} \, th \, p}$$

$$\{3\} \left(17_{\{7\} \, thp}\right)_{21} = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 43_{\{14\} \, th \, p}$$

$$\{4\} \left(17_{\{7\} \, thp}\right)_{22} = 2_{\{1\} \, th \, p} + 5_{\{3\} \, th \, p} + 61_{\{18\} \, th \, p}$$

$$\{5\} \left(17_{\{7\} \, thp}\right)_{23} = 3_{\{2\} \, th \, p} + 11_{\{5\} \, th \, p} + 71_{\{20\} \, th \, p}$$

$$\{1\} \left(19_{\{8\} \, thp}\right)_{24} = 3_{\{2\} \, th \, p} + 5_{\{3\} \, th \, p} + 11_{\{5\} \, th \, p}$$

$$\{2\} \left(19_{\{8\} \, thp}\right)_{25} = 2_{\{1\} \, th \, p} + 5_{\{3\} \, th \, p} + 31_{\{11\} \, th \, p}$$

$$\{3\} \left(19_{\{8\} \, thp}\right)_{26} = 3_{\{2\} \, th \, p} + 7_{\{4\} \, th \, p} + 47_{\{15\} \, th \, p}$$
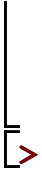
$$\{4\}\ \left(19_{\{8\}\ thp}\right)_{27} = 2_{\{1\}\ th\,p} + 3_{\{2\}\ th\,p} + 71_{\{20\}\ th\,p}$$

$$\{5\}\ \left(19_{\{8\}\ thp}\right)_{28} = 3_{\{2\}\ th\,p} + 13_{\{6\}\ th\,p} + 79_{\{22\}\ th\,p}$$

**(1)**