

solution for generalized four-fours problem by numbers(4, 4, 4, 4,  
4) from 0 to 1000.

2011年3月22日

$$0 = 4 \times (44 - 44)$$

$$1 = 4^{44-44}$$

$$2 = \sqrt{4} + 44 - 44$$

$$3 = 4 - \frac{44}{44}$$

$$4 = 4 + 44 - 44$$

$$5 = 4 + \frac{44}{44}$$

$$6 = \frac{4 + 44}{4 + 4}$$

$$7 = 4 + \frac{4 + 4 + 4}{4}$$

$$8 = 4 + 4 + 4 \times (4 - 4)$$

$$9 = \frac{44 - (4 + 4)}{4}$$

$$10 = 4 + 4 + \frac{4 + 4}{4}$$

$$11 = 4 + \frac{44}{4} - 4$$

$$12 = 4 + 4 + 4 + 4 - 4$$

$$13 = \frac{4 + 4 + 44}{4}$$

$$14 = 4 + \frac{44 - 4}{4}$$

$$15 = \frac{44 + 4 \times 4}{4}$$

$$16 = 4 + \frac{4 + 44}{4}$$

$$17 = \sqrt{4} + 4 + \frac{44}{4}$$

$$18 = \sqrt{4} + 4 + 4 + 4 + 4$$

$$19 = 4 + 4 + \frac{44}{4}$$

$$20 = 4 + 4 + 4 + 4 + 4$$

$$\begin{aligned}
21 &= 4 + \frac{4}{4} + 4 \times 4 \\
22 &= \frac{44 + 44}{4} \\
23 &= 4! - \frac{44}{4} \\
24 &= 44 - (4 + 4 \times 4) \\
25 &= 4! + \frac{44}{4} \\
26 &= \sqrt{4} + 4 + 4 + 4 \times 4 \\
27 &= 4 \times 4 + \frac{44}{4} \\
28 &= 4 + 4 + 4 + 4 \times 4 \\
29 &= 4! + \frac{4 + 4 \times 4}{4} \\
30 &= \sqrt{4} + 44 - 4 \times 4 \\
31 &= 4 \times (4 + 4) - \frac{4}{4} \\
32 &= 44 - (4 + 4 + 4) \\
33 &= 44 - \frac{44}{4} \\
34 &= 44 - (\sqrt{4} + 4 + 4) \\
35 &= \frac{44 + 4! \times 4}{4} \\
36 &= 4 + 4 \times 4 + 4 \times 4 \\
37 &= 44 - \frac{4! + 4}{4} \\
38 &= \sqrt{4} + 44 - (4 + 4) \\
39 &= 44 - \left(4 + \frac{4}{4}\right) \\
40 &= 4 + 44 - (4 + 4) \\
41 &= \frac{4}{4} + 44 - 4 \\
42 &= 44 - \frac{4 + 4}{4} \\
43 &= \frac{4 \times 44 - 4}{4} \\
44 &= 44 + 4 \times (4 - 4) \\
45 &= \frac{4 + 4 \times 44}{4} \\
46 &= 44 + \frac{4 + 4}{4} \\
47 &= 4 + 44 - \frac{4}{4} \\
48 &= 4 + 4 + 44 - 4 \\
49 &= 4 + \frac{4}{4} + 44 \\
50 &= 4 + 4 + 44 - \sqrt{4}
\end{aligned}$$

$$\begin{aligned}
51 &= 44 + \frac{4! + 4}{4} \\
52 &= 4 + 4 \times (4 + 4 + 4) \\
53 &= \frac{4^4 - 44}{4} \\
54 &= \sqrt{4} + 4 + 4 + 44 \\
55 &= 44 + \frac{44}{4} \\
56 &= 4 + 4 + 4 + 44 \\
57 &= \frac{4}{4} + \sqrt{4} \times (4! + 4) \\
58 &= 44 + 4 \times 4 - \sqrt{4} \\
59 &= \frac{4^4 - 4}{4} - 4 \\
60 &= (4 + 4) \times (4 + 4) - 4 \\
61 &= \frac{4 + 4^4}{4} - 4 \\
62 &= \sqrt{4} + 44 + 4 \times 4 \\
63 &= 4 \times 4 \times 4 - \frac{4}{4} \\
64 &= 4 + 44 + 4 \times 4 \\
65 &= \frac{4}{4} + 4 \times 4 \times 4 \\
66 &= 44 + \frac{44}{\sqrt{4}} \\
67 &= 4! + 44 - \frac{4}{4} \\
68 &= 4 + (4 + 4) \times (4 + 4) \\
69 &= 4! + \frac{4}{4} + 44 \\
70 &= \sqrt{4} + 4 + 4 \times 4 \times 4 \\
71 &= \frac{4! + 4 + 4^4}{4} \\
72 &= 4 + 4 + 4 \times 4 \times 4 \\
73 &= \frac{4}{4} + 4! \times 4 - 4! \\
74 &= \frac{444}{\sqrt{4} + 4} \\
75 &= \frac{44 + 4^4}{4} \\
76 &= 44 + 4 \times (4 + 4) \\
77 &= \left(4 - \frac{4}{4}\right)^4 - 4 \\
78 &= 4 \times (4 + 4 \times 4) - \sqrt{4} \\
79 &= 4 \times (4! - 4) - \frac{4}{4} \\
80 &= 4 \times 4 + 4 \times 4 \times 4
\end{aligned}$$

$$\begin{aligned}
81 &= \left(\frac{4+4+4}{4}\right)^4 \\
82 &= \sqrt{4} + 4 \times (4 + 4 \times 4) \\
83 &= \sqrt{4} + \left(4 - \frac{4}{4}\right)^4 \\
84 &= 44 + 44 - 4 \\
85 &= 4 + \left(4 - \frac{4}{4}\right)^4 \\
86 &= 44 + 44 - \sqrt{4} \\
87 &= \frac{444}{4} - 4! \\
88 &= 44 \times \frac{4+4}{4} \\
89 &= \frac{4}{4} + \sqrt{4} \times 44 \\
90 &= \sqrt{4} + 44 + 44 \\
91 &= 4! \times 4 - \left(4 + \frac{4}{4}\right) \\
92 &= 4 + 44 + 44 \\
93 &= \frac{4}{4} + 4! \times 4 - 4 \\
94 &= \sqrt{4} + 4 + \sqrt{4} \times 44 \\
95 &= 4 \times \left(4! - \frac{4}{4 \times 4}\right) \\
96 &= (4 + 4) \times (4 + 4 + 4) \\
97 &= 4 \times \left(4! + \frac{4}{4 \times 4}\right) \\
98 &= \sqrt{4} + \sqrt{4} \times (4 + 44) \\
99 &= 4 + 4! \times 4 - \frac{4}{4} \\
100 &= 4 + \sqrt{4} \times (4 + 44) \\
101 &= 4 + \frac{4}{4} + 4! \times 4 \\
102 &= 4 + 4 + 4! \times 4 - \sqrt{4} \\
103 &= 4 \times \left(\sqrt{4} + 4!\right) - \frac{4}{4} \\
104 &= \sqrt{4} \times (4 + 4 + 44) \\
105 &= \frac{444 - 4!}{4} \\
106 &= \sqrt{4} + 4 + 4 + 4! \times 4 \\
107 &= \frac{444}{4} - 4 \\
108 &= 44 + 4 \times 4 \times 4 \\
109 &= \frac{444}{4} - \sqrt{4}
\end{aligned}$$

$$\begin{aligned}
110 &= \frac{444 - 4}{4} \\
111 &= \frac{444}{\sqrt{4} \times 4} \\
112 &= \frac{4 + 444}{4} \\
113 &= \sqrt{4} + \frac{444}{4} \\
114 &= 4 + 4 \times (4! + 4) - \sqrt{4} \\
115 &= 4 + \frac{444}{4} \\
116 &= 4 + 4! \times 4 + 4 \times 4 \\
117 &= \frac{4! + 444}{4} \\
118 &= \sqrt{4} + 4 + 4 \times (4! + 4) \\
119 &= \left(4 + \frac{4}{4}\right)! - \frac{4}{4} \\
120 &= \sqrt{4} \times (44 + 4 \times 4) \\
121 &= \frac{4}{4} + \left(4 + \frac{4}{4}\right)! \\
122 &= 4 + \left(4 + \frac{4}{4}\right)! - \sqrt{4} \\
123 &= \sqrt{4} + \left(\frac{44}{4}\right)^{\sqrt{4}} \\
124 &= 4 \times 4 \times (4 + 4) - 4 \\
125 &= 4 + \left(\frac{44}{4}\right)^{\sqrt{4}} \\
126 &= 4 \times 4 \times (4 + 4) - \sqrt{4} \\
127 &= \frac{\sqrt{4} \times 4^4 - 4}{4} \\
128 &= 4 \times (4 \times 4 + 4 \times 4) \\
129 &= \frac{4 + \sqrt{4} \times 4^4}{4} \\
130 &= \sqrt{4} + 4 \times 4 \times (4 + 4) \\
131 &= \frac{\sqrt{4} + 4 + 4^4}{\sqrt{4}} \\
132 &= 4 \times 44 - 44 \\
133 &= 4 + \frac{\sqrt{4} + 4^4}{\sqrt{4}} \\
134 &= 4 + \frac{4 + 4^4}{\sqrt{4}} \\
135 &= 4! + \frac{444}{4} \\
136 &= 4 \times \left(\sqrt{4} + 4 \times (4 + 4)\right)
\end{aligned}$$

$$137 = \frac{4! \times 4! - (4! + 4)}{4}$$

$$138 = 44 + 4! \times 4 - \sqrt{4}$$

$$139 = \frac{4! \times 4! - 4}{4} - 4$$

$$140 = 4 \times \left(4! + \frac{44}{4}\right)$$

$$141 = \frac{4 + 4! \times 4!}{4} - 4$$

$$142 = \sqrt{4} + 44 + 4! \times 4$$

$$143 = 4! \times (\sqrt{4} + 4) - \frac{4}{4}$$

$$144 = 4 \times (44 - (4 + 4))$$

$$145 = \frac{4}{4} + 4! \times (\sqrt{4} + 4)$$

$$146 = \sqrt{4} + (4 + 4 + 4)^{\sqrt{4}}$$

$$147 = 4 + \frac{4! \times 4! - 4}{4}$$

$$148 = 4 \times 44 - (4! + 4)$$

$$149 = 4 + \frac{4 + 4! \times 4!}{4}$$

$$150 = \frac{44 + 4^4}{\sqrt{4}}$$

$$151 = 4! + \frac{4^4 - \sqrt{4}}{\sqrt{4}}$$

$$152 = 4 \times \left(44 - (\sqrt{4} + 4)\right)$$

$$153 = 4! + \frac{\sqrt{4} + 4^4}{\sqrt{4}}$$

$$154 = 44 \times \left(4 - \frac{\sqrt{4}}{4}\right)$$

$$155 = \frac{4! \times 4! + 44}{4}$$

$$156 = 4 \times (44 - 4) - 4$$

$$157 = \frac{4 + (\sqrt{4} + 4)!}{4} - 4!$$

$$158 = 4 \times (44 - 4) - \sqrt{4}$$

$$159 : \text{not found.}$$

$$160 = (4 + 4) \times (4 + 4 \times 4)$$

$$161 : \text{not found.}$$

$$162 = \sqrt{4} + 4 \times (44 - 4)$$

$$163 = \frac{(\sqrt{4} + 4!)^{\sqrt{4}} - 4!}{4}$$

$$164 = 4 + 4 \times (44 - 4)$$

$$165 = 44 \times \left( 4 - \sqrt{\sqrt{4}^{-4}} \right)$$

$$166 = 4 \times (44 - \sqrt{4}) - \sqrt{4}$$

$$167 = \frac{4! \times (4! + 4) - 4}{4}$$

$$168 = 4 \times 44 - (4 + 4)$$

$$169 = \frac{(\sqrt{4} + 4)! - 44}{4}$$

$$170 = 4 \times 44 - (\sqrt{4} + 4)$$

$$171 = \sqrt{4} + \frac{(\sqrt{4} + 4!)^{\sqrt{4}}}{4}$$

$$172 = 4 \times \left( 44 - \frac{4}{4} \right)$$

$$173 = \frac{(\sqrt{4} + 4)! - (4! + 4)}{4}$$

$$174 = \sqrt{4} + 4 \times 44 - 4$$

$$175 = 4 \times 44 - \frac{4}{4}$$

$$176 = 4 + 4 \times 44 - 4$$

$$177 = \frac{4}{4} + 4 \times 44$$

$$178 = 4 + 4 \times 44 - \sqrt{4}$$

$$179 = \frac{(4 + 4 - \sqrt{4})! - 4}{4}$$

$$180 = 4 \times \left( \frac{4}{4} + 44 \right)$$

$$181 = \frac{4 + (4 + 4 - \sqrt{4})!}{4}$$

$$182 = \sqrt{4} + 4 + 4 \times 44$$

$$183 = 4 + \frac{(\sqrt{4} + 4)! - 4}{4}$$

$$184 = 4 + 4 + 4 \times 44$$

$$185 = 4 + \frac{4 + (\sqrt{4} + 4)!}{4}$$

$$186 = \sqrt{4} + 4 \times (\sqrt{4} + 44)$$

$$187 = 44 \times \left( 4 + \sqrt{\sqrt{4}^{-4}} \right)$$

$$188 = 4 \times (4 + 44) - 4$$

$$189 = \sqrt{4} \times 4! \times (4 - \sqrt{4}^{-4})$$

$$190 = 4 \times (4 + 44) - \sqrt{4}$$

$$191 = 4! \times (4 + 4) - \frac{4}{4}$$

$$\begin{aligned}
192 &= 4 \times 4 + 4 \times 44 \\
193 &= \frac{4}{4} + 4! \times (4 + 4) \\
194 &= \sqrt{4} + 4 \times (4 + 44) \\
195 &= \frac{(4! + 4)^{\sqrt{4}} - 4}{4} \\
196 &= 4 + 4 \times (4 + 44) \\
197 &= \frac{4 + (4! + 4)^{\sqrt{4}}}{4} \\
198 &= 44 \times \left(4 + \frac{\sqrt{4}}{4}\right) \\
199 &= \frac{\sqrt{4! - 4^4} - \sqrt{4}}{\sqrt{4}} \\
200 &= 4 \times (\sqrt{4} + 4 + 44) \\
201 &= \frac{\sqrt{4} + \sqrt{4! - 4^4}}{\sqrt{4}} \\
202 &= \sqrt{4} + 4! + 4 \times 44 \\
203 &= 4! + \frac{(\sqrt{4} + 4)! - 4}{4} \\
204 &= 4! + 4 + 4 \times 44 \\
205 &= 4! + \frac{4 + (\sqrt{4} + 4)!}{4} \\
206 &= (\sqrt{4} + 4!) \times (4 + 4) - \sqrt{4} \\
207 &: \text{not found.} \\
208 &= 4 \times (4 + 4 + 44) \\
209 &= \frac{\left(\frac{4! + 4}{4}\right)! - 4!}{4!} \\
210 &= 4^4 - (\sqrt{4} + 44) \\
211 &= \frac{4! + \left(\frac{4! + 4}{4}\right)!}{4!} \\
212 &= \sqrt{4^{-4+4}} - 44 \\
213 &: \text{not found.} \\
214 &= \sqrt{4} + 4^4 - 44 \\
215 &= \sqrt{\sqrt{\sqrt{\sqrt{4} + 4}}}^{4!} - \frac{4}{4} \\
216 &= 4 + 4^4 - 44 \\
217 &= \frac{4}{4} + \sqrt{\sqrt{\sqrt{\sqrt{4} + 4}}}^{4!}
\end{aligned}$$



$$218 = \frac{444}{\sqrt{4}} - 4$$

219 : not found.

$$220 = 44 + 4 \times 44$$

$$221 = \frac{444 - \sqrt{4}}{\sqrt{4}}$$

$$222 = \frac{444}{4 - \sqrt{4}}$$

$$223 = \frac{\sqrt{4} + 444}{\sqrt{4}}$$

$$224 = \frac{4 + 444}{\sqrt{4}}$$

$$225 = \sqrt{4 + \frac{44}{4}}$$

$$226 = 4 + \frac{444}{\sqrt{4}}$$

227 : not found.

$$228 = 4 + (4! + 4) \times (4 + 4)$$

229 : not found.

$$230 = \sqrt{4} + 4^4 - (4! + 4)$$

$$231 = 4^4 - \left(4! + \frac{4}{4}\right)$$

$$232 = 4 + 4^4 - (4! + 4)$$

$$233 = \frac{4}{4} + 4^4 - 4!$$

$$234 = \frac{4! + 444}{\sqrt{4}}$$

235 : not found.

$$236 = 44 + 4! \times (4 + 4)$$

237 : not found.

$$238 = 4^4 - (\sqrt{4} + 4 \times 4)$$

$$239 = \frac{4! \times (4! - 4) - \sqrt{4}}{\sqrt{4}}$$

$$240 = 4 \times (44 + 4 \times 4)$$

$$241 = \frac{\sqrt{4} + 4! \times (4! - 4)}{\sqrt{4}}$$

$$242 = \frac{44^{\sqrt{4}}}{4 + 4}$$

$$243 = 4^4 - \frac{\sqrt{4} + 4!}{\sqrt{4}}$$

$$244 = 4^4 - (4 + 4 + 4)$$

$$245 = 4^4 - \frac{44}{4}$$

$$246 = 4^4 - (\sqrt{4} + 4 + 4)$$

247 : not found.

$$248 = \sqrt{4^{4+4}} - (4 + 4)$$

$$249 = 4^4 - \frac{4! + 4}{4}$$

$$250 = \sqrt{4} + 4^4 - (4 + 4)$$

$$251 = 4^4 - \left(4 + \frac{4}{4}\right)$$

$$252 = 4 + 4^4 - (4 + 4)$$

$$253 = \frac{4}{4} + 4^4 - 4$$

$$254 = 4^4 - \frac{4 + 4}{4}$$

$$255 = \frac{4 \times 4^4 - 4}{4}$$

$$256 = 4 \times (4 + 4) \times (4 + 4)$$

$$257 = \frac{4 + 4 \times 4^4}{4}$$

$$258 = 4^4 + \frac{4 + 4}{4}$$

$$259 = 4 + 4^4 - \frac{4}{4}$$

$$260 = 4 + 4 + 4^4 - 4$$

$$261 = 4 + \frac{4}{4} + 4^4$$

$$262 = 4 + 4 + 4^4 - \sqrt{4}$$

$$263 = \frac{4! \times 44 - 4}{4}$$

$$264 = 44 \times (4 + 4 - \sqrt{4})$$

$$265 = \frac{4 + 4! \times 44}{4}$$

$$266 = \sqrt{4} + 4 + 4 + 4^4$$

$$267 = 4^4 + \frac{44}{4}$$

$$268 = 4 + 4 + 4 + 4^4$$

$$269 = 4^4 + \frac{\sqrt{4} + 4!}{\sqrt{4}}$$

$$270 = 4^4 + 4 \times 4 - \sqrt{4}$$

271 : not found.

$$272 = 4 \times (4 + 4 \times 4 \times 4)$$

273 : not found.

$$274 = \sqrt{4} + 4 \times (4! + 44)$$

$$275 = \frac{4! \times 4! - (\sqrt{4} + 4!)}{\sqrt{4}}$$

$$\begin{aligned}
276 &= 4 + 4 \times (4! + 44) \\
277 &= \frac{\sqrt{4} + 4! \times 4! - 4!}{\sqrt{4}} \\
278 &= 4^4 + \frac{44}{\sqrt{4}} \\
279 &= 4! + 4^4 - \frac{4}{4} \\
280 &= 4 \times (\sqrt{4} + 4! + 44) \\
281 &= 4! + \frac{4}{4} + 4^4 \\
282 &= 4! + 4 + 4^4 - \sqrt{4} \\
283 &= \frac{4! \times 4! - \sqrt{4}}{\sqrt{4}} - 4 \\
284 &= 4! \times (4 + 4 + 4) - 4 \\
285 &= \frac{4! \times 4! - (\sqrt{4} + 4)}{\sqrt{4}} \\
286 &= 4! \times (4 + 4 + 4) - \sqrt{4} \\
287 &= \frac{\sqrt{4} \times 4! \times 4! - 4}{4} \\
288 &= (\sqrt{4} + 4) \times (4 + 44) \\
289 &= \left(\frac{4}{4} + 4 \times 4\right)^{\sqrt{4}} \\
290 &= \sqrt{4} + 4! \times (4 + 4 + 4) \\
291 &= \frac{\sqrt{4} + 4 + 4! \times 4!}{\sqrt{4}} \\
292 &= 4 + 4! \times (4 + 4 + 4) \\
293 &= 4 + \frac{\sqrt{4} + 4! \times 4!}{\sqrt{4}} \\
294 &= 4 + \frac{4 + 4! \times 4!}{\sqrt{4}} \\
295 &: \text{ not found.} \\
296 &= 44 + 4^4 - 4 \\
297 &: \text{ not found.} \\
298 &= 44 + 4^4 - \sqrt{4} \\
299 &= \frac{4! + 4! \times 4! - \sqrt{4}}{\sqrt{4}} \\
300 &= 44 + \sqrt{4}^{4+4} \\
301 &= \frac{\sqrt{4} + 4! + 4! \times 4!}{\sqrt{4}} \\
302 &= \sqrt{4} + 44 + 4^4 \\
303 &: \text{ not found.}
\end{aligned}$$

$$304 = 4 + 44 + 4^4$$

305 : not found.

$$306 = \sqrt{4} + 4! + 4! + 4^4$$

307 : not found.

$$308 = 44 \times \frac{4! + 4}{4}$$

309 : not found.

$$310 = \frac{4! \times 4! + 44}{\sqrt{4}}$$

$$311 = \frac{4! \times (\sqrt{4} + 4!) - \sqrt{4}}{\sqrt{4}}$$

$$312 = (\sqrt{4} + 4!) \times (4 + 4 + 4)$$

$$313 = \frac{\sqrt{4} + 4! \times (\sqrt{4} + 4!)}{\sqrt{4}}$$

$$314 = \frac{4 + 4! \times (\sqrt{4} + 4!)}{\sqrt{4}}$$

$$315 = \sqrt{4} \times \frac{(4 + 4)!}{4^4}$$

$$316 = 4 \times 4 \times (4! - 4) - 4$$

317 : not found.

$$318 = 4 \times 4 \times (4! - 4) - \sqrt{4}$$

$$319 = \sqrt{\sqrt{\sqrt{\sqrt{\frac{4! + 4}{4}}}} - 4!}$$

$$320 = (4 + 4) \times (44 - 4)$$

321 : not found.

$$322 = \sqrt{4} + 4 \times 4 \times (4! - 4)$$

$$323 = \frac{(\sqrt{4} + 4)^4 - 4}{4}$$

$$324 = 4! + 44 + 4^4$$

$$325 = \frac{4 + (\sqrt{4} + 4)^4}{4}$$

$$326 = \sqrt{4} + \frac{(\sqrt{4} + 4)^4}{4}$$

327 : not found.

$$328 = 44 \times (4 + 4) - 4!$$

329 : not found.

$$330 = \frac{4! + (\sqrt{4} + 4)^4}{4}$$

331 : not found.

$$332 = 4! \times (4 \times 4 - \sqrt{4}) - 4$$

333 : not found.

$$\begin{aligned}
334 &= 4! \times (4 \times 4 - \sqrt{4}) - \sqrt{4} \\
335 &= \frac{4! \times (4! + 4) - \sqrt{4}}{\sqrt{4}} \\
336 &= (4 + 4) \times (44 - \sqrt{4}) \\
337 &= \frac{\sqrt{4} + 4! \times (4! + 4)}{\sqrt{4}} \\
338 &= \frac{(\sqrt{4} + 4)! - 44}{\sqrt{4}} \\
339 &= \frac{\sqrt{4} + (\sqrt{4} + 4!)^{\sqrt{4}}}{\sqrt{4}} \\
340 &= 4! \times 4 \times 4 - 44 \\
341 &= \sqrt{4} \times \frac{\sqrt{\sqrt{4}^{4!}} - 4}{4!} \\
342 &= 4 + \frac{(\sqrt{4} + 4!)^{\sqrt{4}}}{\sqrt{4}} \\
343 &= \sqrt{\frac{4! + 4}{4}^{\sqrt{4}+4}} \\
344 &= \sqrt{4} \times (4 \times 44 - 4) \\
345 &= \sqrt{4} + \sqrt{\sqrt{\sqrt{\sqrt{4! + 4}}}}^{4!} \\
346 &= \frac{(\sqrt{4} + 4)! - (4! + 4)}{\sqrt{4}} \\
347 &= \frac{(\sqrt{4} + 4)! - (\sqrt{4} + 4!)}{\sqrt{4}} \\
348 &= 44 \times (4 + 4) - 4 \\
349 &= \frac{\sqrt{4} + (\sqrt{4} + 4)! - 4!}{\sqrt{4}} \\
350 &= 44 \times (4 + 4) - \sqrt{4} \\
351 &: \text{ not found.} \\
352 &= 4 \times (44 + 44) \\
353 &: \text{ not found.} \\
354 &= \sqrt{4} + 44 \times (4 + 4) \\
355 &= \frac{(\sqrt{4} + 4)! - \sqrt{4}}{\sqrt{4}} - 4 \\
356 &= 4 + 44 \times (4 + 4) \\
357 &= \frac{(\sqrt{4} + 4)! - (\sqrt{4} + 4)}{\sqrt{4}} \\
358 &= \frac{4 + (\sqrt{4} + 4)!}{\sqrt{4}} - 4
\end{aligned}$$

$$\begin{aligned}
359 &= \frac{\sqrt{4} \times (\sqrt{4} + 4)! - 4}{4} \\
360 &= \sqrt{4} \times (4 + 4 \times 44) \\
361 &= \frac{4 + \sqrt{4} \times (\sqrt{4} + 4)!}{4} \\
362 &= 4 + \frac{(\sqrt{4} + 4)! - 4}{\sqrt{4}} \\
363 &= \frac{\sqrt{4} + 4 + (\sqrt{4} + 4)!}{\sqrt{4}} \\
364 &= 4 \times (4! \times 4 - 4) - 4 \\
365 &= 4 + \frac{\sqrt{4} + (\sqrt{4} + 4)!}{\sqrt{4}} \\
366 &= 4 \times (4! \times 4 - 4) - \sqrt{4} \\
367 &= 4! + \sqrt{\sqrt{\sqrt{\sqrt{\frac{4! + 4}{4}}}}^{4!}} \\
368 &= (4 + 4) \times (\sqrt{4} + 44) \\
369 &: \text{ not found.} \\
370 &= \sqrt{4} + 4 \times (4! \times 4 - 4) \\
371 &= \frac{4! + (\sqrt{4} + 4)! - \sqrt{4}}{\sqrt{4}} \\
372 &= 4 + 4 \times (4! \times 4 - 4) \\
373 &= \frac{\sqrt{4} + 4! + (\sqrt{4} + 4)!}{\sqrt{4}} \\
374 &= 4 \times (4! \times 4 - \sqrt{4}) - \sqrt{4} \\
375 &: \text{ not found.} \\
376 &= 4! + 44 \times (4 + 4) \\
377 &: \text{ not found.} \\
378 &= 4! \times 4 \times 4 - (\sqrt{4} + 4) \\
379 &: \text{ not found.} \\
380 &= 4 \times \left(4! \times 4 - \frac{4}{4}\right) \\
381 &= 4! \times \left(4 \times 4 - \sqrt{\sqrt{\sqrt{\sqrt{4}}}}^{4!}\right) \\
382 &= \sqrt{4} + 4! \times 4 \times 4 - 4 \\
383 &= 4! \times 4 \times 4 - \frac{4}{4} \\
384 &= (4 + 4) \times (4 + 44) \\
385 &= \frac{4}{4} + 4! \times 4 \times 4
\end{aligned}$$

$$386 = 4 + 4! \times 4 \times 4 - \sqrt{4}$$

$$387 = 4! \times \left( \sqrt{\sqrt{\sqrt{\sqrt{4}}}}^{-4!} + 4 \times 4 \right)$$

$$388 = 4 \times \left( \frac{4}{4} + 4! \times 4 \right)$$

389 : not found.

$$390 = \sqrt{4} + 4 + 4! \times 4 \times 4$$

$$391 = \frac{(4! + 4)^{\sqrt{4}} - \sqrt{4}}{\sqrt{4}}$$

$$392 = 4 + 4 + 4! \times 4 \times 4$$

$$393 = \frac{\sqrt{4} + (4! + 4)^{\sqrt{4}}}{\sqrt{4}}$$

$$394 = \sqrt{4} + 4 \times (\sqrt{4} + 4! \times 4)$$

395 : not found.

$$396 = 444 - (4! + 4!)$$

397 : not found.

$$398 = 4 \times (4 + 4! \times 4) - \sqrt{4}$$

$$399 = \sqrt{4! - 4}^4 - \frac{4}{4}$$

$$400 = 444 - 44$$

$$401 = \frac{4}{4} + \sqrt{4! - 4}^4$$

$$402 = \sqrt{4} + 4 \times (4 + 4! \times 4)$$

403 : not found.

$$404 = 4 + 4 \times (4 + 4! \times 4)$$

405 : not found.

$$406 = \sqrt{4} + 4 + \sqrt{4! - 4}^4$$

407 : not found.

$$408 = (\sqrt{4} + 4) \times (4! + 44)$$

409 : not found.

$$410 = \sqrt{4} + 4! + 4! \times 4 \times 4$$

411 : not found.

$$412 = 4 \times 4 \times (\sqrt{4} + 4!) - 4$$

413 : not found.

$$414 = 4 \times 4 \times (\sqrt{4} + 4!) - \sqrt{4}$$

415 : not found.

$$416 = 444 - (4! + 4)$$

417 : not found.

$$418 = 444 - (\sqrt{4} + 4!)$$

$$419 = \frac{\frac{(4+4)!}{4!} - 4}{4}$$

$$420 = 444 - \sqrt{4 \times 4!}$$

$$421 = \frac{4 + \frac{(4+4)!}{4!}}{4}$$

$$422 = \sqrt{4} + 444 - 4!$$

$$423 : \text{not found.}$$

$$424 = 4 + 444 - 4!$$

$$425 : \text{not found.}$$

$$426 = \frac{4! + \frac{(4+4)!}{4!}}{4}$$

$$427 : \text{not found.}$$

$$428 = 444 - 4 \times 4$$

$$429 : \text{not found.}$$

$$430 = 4! \times (\sqrt{4} + 4 \times 4) - \sqrt{4}$$

$$431 = \frac{\sqrt{\sqrt{\sqrt{\sqrt{\frac{4!}{\sqrt{4}}}}}} - 4}{4}$$

$$432 = 4^4 + 4 \times 44$$

$$433 = \frac{4 + \sqrt{\sqrt{\sqrt{\sqrt{\frac{4!}{\sqrt{4}}}}}}}{4}$$

$$434 = \sqrt{4} + 4! \times (\sqrt{4} + 4 \times 4)$$

$$435 : \text{not found.}$$

$$436 = 444 - (4 + 4)$$

$$437 : \text{not found.}$$

$$438 = 444 - (\sqrt{4} + 4)$$

$$439 : \text{not found.}$$

$$440 = 44 \times (\sqrt{4} + 4 + 4)$$

$$441 = \frac{\sqrt{44 - \sqrt{4}}^4}{4}$$

$$442 = \sqrt{4} + 444 - 4$$

$$443 = 444 - \frac{4}{4}$$

$$444 = 4 + 444 - 4$$

$$445 = \frac{4}{4} + 444$$



$$446 = 4 + 444 - \sqrt{4}$$

447 : not found.

$$448 = \sqrt{4 \times 4} + 444$$

449 : not found.

$$450 = \sqrt{4} + 4 + 444$$

451 : not found.

$$452 = 4 + 4 + 444$$

453 : not found.

$$454 = 4! \times (4! - 4) - (\sqrt{4} + 4!)$$

455 : not found.

$$456 = \frac{4!}{\sqrt{4}} + 444$$

457 : not found.

$$458 = \sqrt{4} + 4! \times (4! - 4) - 4!$$

459 : not found.

$$460 = 4 \times 4 + 444$$

461 : not found.

$$462 = (\sqrt{4} + 4)! - (\sqrt{4} + 4^4)$$

463 : not found.

$$464 = 4! + 444 - 4$$

465 : not found.

$$466 = 4! + 444 - \sqrt{4}$$

467 : not found.

$$468 = \sqrt{4 \times 4!} + 444$$

469 : not found.

$$470 = \sqrt{4} + 4! + 444$$

471 : not found.

$$472 = 4! + 4 + 444$$

473 : not found.

$$474 = 4! \times (4! - 4) - (\sqrt{4} + 4)$$

$$475 = (4! - 4) \times \left(4! - \sqrt{\sqrt{4}^{-4}}\right)$$

$$476 = 4! \times (4 + 4 \times 4) - 4$$

$$477 = 4! \times \left(4! - \left(4 + \sqrt{\sqrt{\sqrt{\sqrt{4}^{-4}}}}\right)\right)$$

$$478 = 4! \times (4 + 4 \times 4) - \sqrt{4}$$

$$479 = 4! \times (4! - 4) - \frac{4}{4}$$

$$480 = \frac{44\sqrt{4}}{4} - 4$$

$$481 = \frac{4}{4} + 4! \times (4! - 4)$$

$$482 = \sqrt{4} + 4! \times (4 + 4 \times 4)$$

$$483 = \frac{44\sqrt{4} - 4}{4}$$

$$484 = 44 \times \frac{44}{4}$$

$$485 = \frac{4 + 44\sqrt{4}}{4}$$

$$486 = \sqrt{4} + \frac{44\sqrt{4}}{4}$$

$$487 : \text{not found.}$$

$$488 = 44 + 444$$

$$489 : \text{not found.}$$

$$490 = \frac{4! + 44\sqrt{4}}{4}$$

$$491 : \text{not found.}$$

$$492 = 4! + 4! + 444$$

$$493 : \text{not found.}$$

$$494 : \text{not found.}$$

$$495 : \text{not found.}$$

$$496 = 4 \times \left( 4 + \left( 4 + \frac{4}{4} \right)! \right)$$

$$497 : \text{not found.}$$

$$498 : \text{not found.}$$

$$499 : \text{not found.}$$

$$500 = \sqrt{4} \times (4^4 - 4) - 4$$

$$501 : \text{not found.}$$

$$502 = \sqrt{4} \times (4^4 - 4) - \sqrt{4}$$

$$503 : \text{not found.}$$

$$504 = \sqrt{4} \times 4^4 - (4 + 4)$$

$$505 = \left( 4! - \frac{4}{4} \right)^{\sqrt{4}} - 4!$$

$$506 = \sqrt{4} + \sqrt{4} \times (4^4 - 4)$$

$$507 : \text{not found.}$$

$$508 = 4^4 + 4^4 - 4$$

$$509 = \frac{\sqrt{\sqrt{4}^{4!}} - 4!}{4 + 4}$$

$$510 = \sqrt{4} \times \left( 4^4 - \frac{4}{4} \right)$$

$$511 = \sqrt{4} \times 4^4 - \frac{4}{4}$$

$$512 = 4 \times 4 \times 4 \times (4 + 4)$$

$$513 = \frac{4}{4} + \sqrt{4} \times 4^4$$

$$514 = \sqrt{4} + 4^4 + 4^4$$

$$515 = \frac{4! + \sqrt{\sqrt{4}^{4!}}}{4 + 4}$$

$$516 = 4 + 4^4 + 4^4$$

$$517 = (\sqrt{4} - 4!) \times \left( \frac{\sqrt{4}}{4} - 4! \right)$$

$$518 = \sqrt{4} + 4 + \sqrt{4} \times 4^4$$

$$519 : \text{not found.}$$

$$520 = 4 + 4 + \sqrt{4} \times 4^4$$

$$521 : \text{not found.}$$

$$522 = \sqrt{4} + \sqrt{4} \times (4 + 4^4)$$

$$523 : \text{not found.}$$

$$524 = 4 + \sqrt{4} \times (4 + 4^4)$$

$$525 = \left( 4! - \frac{4}{4} \right)^{\sqrt{4}} - 4$$

$$526 = \frac{4! \times 44 - 4}{\sqrt{4}}$$

$$527 = \frac{4! \times 44 - \sqrt{4}}{\sqrt{4}}$$

$$528 = 44 \times (4 + 4 + 4)$$

$$529 = \frac{(\sqrt{4} + 44)^{\sqrt{4}}}{4}$$

$$530 = \frac{4 + 4! \times 44}{\sqrt{4}}$$

$$531 = \sqrt{4} + \left( 4! - \frac{4}{4} \right)^{\sqrt{4}}$$

$$532 = 4 + 4! \times \frac{44}{\sqrt{4}}$$

$$533 = 4 + \left( 4! - \frac{4}{4} \right)^{\sqrt{4}}$$

$$534 = \sqrt{4} + 4! \times 4! - 44$$

$$535 : \text{not found.}$$

$$536 = 4 + 4! \times 4! - 44$$

$$537 : \text{not found.}$$

$$538 = \sqrt{4} + 4! + \sqrt{4} \times 4^4$$

$$539 = (4! - \sqrt{4}) \times \left(4! + \frac{\sqrt{4}}{4}\right)$$

$$540 = 4! \times 4 + 444$$

541 : not found.

542 : not found.

543 : not found.

$$544 = (4 + 4) \times (4! + 44)$$

545 : not found.

$$546 = 4! \times 4! - (\sqrt{4} + 4! + 4)$$

547 : not found.

$$548 = 4! \times \left(4! - \frac{4}{4}\right) - 4$$

$$549 = 4! \times \left(4! - \sqrt{\sqrt{\sqrt{\sqrt{4}}}}^{-4!}\right) - 4!$$

$$550 = (4! - \sqrt{4}) \times \left(4! + \frac{4}{4}\right)$$

$$551 = 4! \times 4! - \left(4! + \frac{4}{4}\right)$$

$$552 = (\sqrt{4} + 4) \times (4! \times 4 - 4)$$

$$553 = \frac{4}{4} + 4! \times 4! - 4!$$

$$554 = 4! \times 4! - \frac{44}{\sqrt{4}}$$

$$555 = 4! \times \left(4! + \sqrt{\sqrt{\sqrt{\sqrt{4}}}}^{-4!}\right) - 4!$$

$$556 = 44 + \sqrt{4} \times 4^4$$

557 : not found.

$$558 = (4! + 4) \times (4! - 4) - \sqrt{4}$$

559 : not found.

$$560 = 4 \times (44 + 4! \times 4)$$

561 : not found.

$$562 = \sqrt{4} + (4! + 4) \times (4! - 4)$$

$$563 = 4! \times 4! - \frac{\sqrt{4} + 4!}{\sqrt{4}}$$

$$564 = 4 + (4! + 4) \times (4! - 4)$$

$$565 = 4! \times 4! - \frac{44}{4}$$

$$566 = 4! \times 4! - (\sqrt{4} + 4 + 4)$$

$$567 = 4! \times \left( 4! - \frac{4!}{\sqrt{\sqrt{\sqrt{4!}}}} \right)$$

$$568 = \sqrt{4} \times (4! + 4 + 4^4)$$

$$569 = 4! \times 4! - \frac{4! + 4}{4}$$

$$570 = \sqrt{4} + 4! \times 4! - (4 + 4)$$

$$571 = 4! \times 4! - \left( 4 + \frac{4}{4} \right)$$

$$572 = 4 + 4! \times 4! - (4 + 4)$$

$$573 = \frac{4}{4} + 4! \times 4! - 4$$

$$574 = 4! \times 4! - \frac{4 + 4}{4}$$

$$575 = 4!^{4-\sqrt{4}} - \frac{4}{4}$$

$$576 = 4! \times (4 + 4 + 4 \times 4)$$

$$577 = \frac{4}{4} + 4!^{4-\sqrt{4}}$$

$$578 = 4! \times 4! + \frac{4 + 4}{4}$$

$$579 = 4 + 4! \times 4! - \frac{4}{4}$$

$$580 = 4 + 4! \times 4 \times (\sqrt{4} + 4)$$

$$581 = 4 + \frac{4}{4} + 4! \times 4!$$

$$582 = 4 + 4 + 4! \times 4! - \sqrt{4}$$

$$583 = 4! \times 4! + \frac{4! + 4}{4}$$

$$584 = 4 + 4 + 4!^{4-\sqrt{4}}$$

$$585 = 4! \times \left( 4! + \frac{4!}{\sqrt{\sqrt{\sqrt{4!}}}} \right)$$

$$586 = \sqrt{4} + 4 + 4 + 4! \times 4!$$

$$587 = 4! \times 4! + \frac{44}{4}$$

$$588 = 4 + 4 + 4 + 4! \times 4!$$

$$589 = 4! \times 4! + \frac{\sqrt{4} + 4!}{\sqrt{4}}$$

$$590 = 4! \times 4! + 4 \times 4 - \sqrt{4}$$

$$591 : \text{not found.}$$

$$592 = 4 \times \left( 4 + 4! \times (\sqrt{4} + 4) \right)$$

$$593 : \text{not found.}$$

$$594 = \sqrt{4} + 4! \times 4! + 4 \times 4$$

595 : not found.

$$596 = 4 + 4! \times 4! + 4 \times 4$$

$$597 = 4! + 4! \times \left( 4! - \sqrt{\sqrt{\sqrt{\sqrt{4}}}}^{-4!} \right)$$

$$598 = 4! \times 4! + \frac{44}{\sqrt{4}}$$

$$599 = 4! + 4! \times 4! - \frac{4}{4}$$

$$600 = \sqrt{4} \times (44 + 4^4)$$

$$601 = \left( 4 + \frac{4}{4} \right)^4 - 4!$$

$$602 = \sqrt{4} + 4! \times \left( 4! + \frac{4}{4} \right)$$

$$603 = 4! + 4! \times \left( 4! + \sqrt{\sqrt{\sqrt{\sqrt{4}}}}^{-4!} \right)$$

$$604 = 4 + 4! \times \left( 4! + \frac{4}{4} \right)$$

605 : not found.

$$606 = \sqrt{4} + 4! + 4 + 4! \times 4!$$

607 : not found.

$$608 = 4 \times (4 \times 44 - 4!)$$

609 : not found.

610 : not found.

$$611 = \left( \sqrt{4} + 4! \right) \times \left( 4! - \frac{\sqrt{4}}{4} \right)$$

$$612 = (4! + 4) \times (4! - \sqrt{4}) - 4$$

613 : not found.

$$614 = (4! + 4) \times (4! - \sqrt{4}) - \sqrt{4}$$

615 : not found.

$$616 = 44 \times (4 \times 4 - \sqrt{4})$$

617 : not found.

$$618 = 4! \times 4! + 44 - \sqrt{4}$$

619 : not found.

$$620 = 44 + 4!^{4-\sqrt{4}}$$

$$621 = \left( 4 + \frac{4}{4} \right)^4 - 4$$

$$622 = \sqrt{4} + 4! \times 4! + 44$$

$$623 = \left(4 + \frac{4}{4}\right)^4 - \sqrt{4}$$

$$624 = 4 + 4! \times 4! + 44$$

$$625 = \left(\frac{4 + 4 \times 4}{4}\right)^4$$

$$626 = \sqrt{4} + 4! \times (4! + 4 - \sqrt{4})$$

$$627 = \sqrt{4} + \left(4 + \frac{4}{4}\right)^4$$

$$628 = 4! \times (4! + 4) - 44$$

$$629 = 4 + \left(4 + \frac{4}{4}\right)^4$$

$$630 = \frac{(4 + 4)!}{4 \times 4 \times 4}$$

$$631 : \text{not found.}$$

$$632 = (\sqrt{4} + 4)! - \sqrt{4} \times 44$$

$$633 : \text{not found.}$$

$$634 = 4 + \frac{(4 + 4)!}{\sqrt{\sqrt{\sqrt{4}}^{4!}}}$$

$$635 : \text{not found.}$$

$$636 = \frac{(\sqrt{4} + 4)^4 - 4!}{\sqrt{4}}$$

$$637 = (\sqrt{4} + 4!) \times \left(4! + \frac{\sqrt{4}}{4}\right)$$

$$638 = \sqrt{\sqrt{\sqrt{4}}^{4!}} + 4! \times 4! - \sqrt{4}$$

$$639 : \text{not found.}$$

$$640 = 4 \times 4 \times (44 - 4)$$

$$641 : \text{not found.}$$

$$642 = \sqrt{4} + \sqrt{\sqrt{\sqrt{4}}^{4!}} + 4! \times 4!$$

$$643 : \text{not found.}$$

$$644 = \frac{(\sqrt{4} + 4)^4}{\sqrt{4}} - 4$$

$$645 : \text{not found.}$$

$$646 = \frac{(\sqrt{4} + 4)^4 - 4}{\sqrt{4}}$$

$$647 = \frac{(\sqrt{4} + 4)^4 - \sqrt{4}}{\sqrt{4}}$$

$$648 = \frac{(\sqrt{4} + 4)^4}{4 - \sqrt{4}}$$

$$649 = 4! + \left(4 + \frac{4}{4}\right)^4$$

$$650 = \frac{4 + (\sqrt{4} + 4)^4}{\sqrt{4}}$$

651 : not found.

$$652 = 4 + \frac{(\sqrt{4} + 4)^4}{\sqrt{4}}$$

653 : not found.

$$654 = \sqrt{4} + (\sqrt{4} + 4!)^{\sqrt{4}} - 4!$$

655 : not found.

$$656 = (\sqrt{4} + 4)! - 4 \times 4 \times 4$$

657 : not found.

$$658 = (4! + 4) \times \left(4! - \frac{\sqrt{4}}{4}\right)$$

659 : not found.

$$660 = 4! \times \left(4! + 4 - \frac{\sqrt{4}}{4}\right)$$

661 : not found.

662 : not found.

663 : not found.

$$664 = 4! \times (4! + 4) - (4 + 4)$$

$$665 = (4! + 4) \times \left(4! - \sqrt{\sqrt{4}^{-4}}\right)$$

$$666 = 4! \times (4! + 4) - (\sqrt{4} + 4)$$

667 : not found.

$$668 = 44 + 4! \times (\sqrt{4} + 4!)$$

$$669 = 4! \times \left(4! + 4 - \sqrt{\sqrt{\sqrt{\sqrt{4}^{-4!}}}}\right)$$

$$670 = \sqrt{4} + 4! \times (4! + 4) - 4$$

$$671 = 4! \times (4! + 4) - \frac{4}{4}$$

$$672 = 4 \times 4 \times (44 - \sqrt{4})$$

$$673 = \frac{4}{4} + 4! \times (4! + 4)$$

$$674 = (\sqrt{4} + 4)! - (\sqrt{4} + 44)$$

$$675 = (\sqrt{4} + 4!)^{\sqrt{4}} - \frac{4}{4}$$



$$676 = (4 + 4 - \sqrt{4})! - 44$$

$$677 = \frac{4}{4} + (\sqrt{4} + 4!)^{\sqrt{4}}$$

$$678 = \sqrt{4} + (\sqrt{4} + 4)! - 44$$

$$679 = (4! + 4) \times \left(4! + \sqrt{\sqrt{4}^{-4}}\right)$$

$$680 = 4 + (\sqrt{4} + 4)! - 44$$

681 : not found.

$$682 = \sqrt{4} + 4 + (\sqrt{4} + 4!)^{\sqrt{4}}$$

$$683 = \frac{\sqrt{4} + \sqrt{\sqrt{4}^{4!}}}{\sqrt{4} + 4}$$

$$684 = 4 + 4 + (\sqrt{4} + 4!)^{\sqrt{4}}$$

685 : not found.

$$686 = (4! + 4) \times \left(4! + \frac{\sqrt{4}}{4}\right)$$

687 : not found.

$$688 = 4 \times (4 \times 44 - 4)$$

689 : not found.

$$690 = (\sqrt{4} + 4)! - (\sqrt{4} + 4! + 4)$$

691 : not found.

$$692 = (4 + 4 - \sqrt{4})! - (4! + 4)$$

693 : not found.

$$694 = \sqrt{4} + (\sqrt{4} + 4)! - (4! + 4)$$

$$695 = (\sqrt{4} + 4)! - \left(4! + \frac{4}{4}\right)$$

$$696 = 4 \times (4 \times 44 - \sqrt{4})$$

$$697 = \frac{4}{4} + (\sqrt{4} + 4)! - 4!$$

$$698 = (\sqrt{4} + 4)! - \frac{44}{\sqrt{4}}$$

699 : not found.

$$700 = 4^4 + 444$$

701 : not found.

$$702 = 4 \times 4 \times 44 - \sqrt{4}$$

703 : not found.

$$704 = \sqrt{4} \times 44 \times (4 + 4)$$

$$\begin{aligned}
705 &= \sqrt{\sqrt{4 - \frac{4}{4}}^{4!}} - 4! \\
706 &= \sqrt{4} + 4 \times 4 \times 44 \\
707 &= (\sqrt{4} + 4)! - \frac{\sqrt{4} + 4!}{\sqrt{4}} \\
708 &= 4 + 4 \times 4 \times 44 \\
709 &= (\sqrt{4} + 4)! - \frac{44}{4} \\
710 &= (\sqrt{4} + 4)! - (\sqrt{4} + 4 + 4) \\
711 &: \text{ not found.} \\
712 &= 4 \times (\sqrt{4} + 4 \times 44) \\
713 &= (\sqrt{4} + 4)! - \frac{4! + 4}{4} \\
714 &= \sqrt{4} + (\sqrt{4} + 4)! - (4 + 4) \\
715 &= (\sqrt{4} + 4)! - \left(4 + \frac{4}{4}\right) \\
716 &= \left(4 + \frac{4 + 4}{4}\right)! - 4 \\
717 &= \frac{4}{4} + (\sqrt{4} + 4)! - 4 \\
718 &= (\sqrt{4} + 4)! - \frac{4 + 4}{4} \\
719 &= (4 + 4 - \sqrt{4})! - \frac{4}{4} \\
720 &= 4 \times (4 + 4 \times 44) \\
721 &= \frac{4}{4} + (4 + 4 - \sqrt{4})! \\
722 &= \sqrt{4} + \left(4 + \frac{4 + 4}{4}\right)! \\
723 &= 4 + (\sqrt{4} + 4)! - \frac{4}{4} \\
724 &= 4 + \left(4 + \frac{4 + 4}{4}\right)! \\
725 &= 4 + \frac{4}{4} + (\sqrt{4} + 4)! \\
726 &= \sqrt{4} + 4 + (4 + 4 - \sqrt{4})! \\
727 &= (\sqrt{4} + 4)! + \frac{4! + 4}{4} \\
728 &= 4! + 4 \times 4 \times 44 \\
729 &= \left(4 - \frac{4}{4}\right)^{\sqrt{4} + 4} \\
730 &= \sqrt{4} + 4 + 4 + (\sqrt{4} + 4)! \\
731 &= (\sqrt{4} + 4)! + \frac{44}{4}
\end{aligned}$$

$$732 = 4 + 4 + 4 + (\sqrt{4} + 4)!$$

$$733 = 4 + \sqrt{\sqrt{4 - \frac{4}{4}}^{4!}}$$

$$734 = 4 \times 4 + (\sqrt{4} + 4)! - \sqrt{4}$$

735 : not found.

$$736 = 4 \times 4 \times (\sqrt{4} + 44)$$

737 : not found.

$$738 = \sqrt{4} + 4 \times 4 + (\sqrt{4} + 4)!$$

739 : not found.

$$740 = 4 + 4 \times 4 + (\sqrt{4} + 4)!$$

741 : not found.

$$742 = (\sqrt{4} + 4)! + \frac{44}{\sqrt{4}}$$

$$743 = 4! + (\sqrt{4} + 4)! - \frac{4}{4}$$

$$744 = 4! + \left(4 + \frac{4 + 4}{4}\right)!$$

$$745 = 4! + \frac{4}{4} + (\sqrt{4} + 4)!$$

$$746 = \sqrt{4} + 4! + (4 + 4 - \sqrt{4})!$$

747 : not found.

$$748 = 4! + 4 + (4 + 4 - \sqrt{4})!$$

749 : not found.

$$750 = \sqrt{4} + 4! + 4 + (\sqrt{4} + 4)!$$

751 : not found.

$$752 = 4 \times (4! \times (4 + 4) - 4)$$

$$753 = 4! + \sqrt{\sqrt{4 - \frac{4}{4}}^{4!}}$$

754 : not found.

755 : not found.

$$756 = (4! + 4)^{\sqrt{4}} - (4! + 4)$$

757 : not found.

$$758 = (4! + 4)^{\sqrt{4}} - (\sqrt{4} + 4!)$$

759 : not found.

$$760 = 44 + (\sqrt{4} + 4)! - 4$$

761 : not found.

$$762 = 44 + (\sqrt{4} + 4)! - \sqrt{4}$$

763 : not found.

$$764 = 44 + (4 + 4 - \sqrt{4})!$$

765 : not found.

$$766 = \sqrt{4} + 44 + (\sqrt{4} + 4)!$$

$$767 = \frac{4! \times \sqrt{\sqrt{\sqrt{4}}^{4!}} - \sqrt{4}}{\sqrt{4}}$$

$$768 = 4 \times 4 \times (4 + 44)$$

$$769 = \frac{\sqrt{4} + 4! \times \sqrt{\sqrt{\sqrt{4}}^{4!}}}{\sqrt{4}}$$

$$770 = \sqrt{4} + 4! \times 4 \times (4 + 4)$$

771 : not found.

$$772 = 4 + 4! \times 4 \times (4 + 4)$$

773 : not found.

774 : not found.

775 : not found.

$$776 = 4 \times (\sqrt{4} + 4! \times (4 + 4))$$

777 : not found.

$$778 = (4! + 4)^{\sqrt{4}} - (\sqrt{4} + 4)$$

779 : not found.

$$780 = (4! + 4) \times (4! + 4) - 4$$

781 : not found.

$$782 = (4! + 4) \times (4! + 4) - \sqrt{4}$$

$$783 = (4! + 4)^{\sqrt{4}} - \frac{4}{4}$$

$$784 = 4 \times (4 + 4! \times (4 + 4))$$

$$785 = \frac{4}{4} + (4! + 4)^{\sqrt{4}}$$

$$786 = \sqrt{4} + (4! + 4) \times (4! + 4)$$

787 : not found.

$$788 = 4 + (4! + 4) \times (4! + 4)$$

789 : not found.

$$790 = \sqrt{4} + 4 + (4! + 4)^{\sqrt{4}}$$

791 : not found.

$$792 = 44 \times (\sqrt{4} + 4 \times 4)$$

793 : not found.

794 : not found.

795 : not found.

$$796 = \sqrt{4} \times \sqrt{4! - 4} - 4$$

797 : not found.

$$798 = \sqrt{4} \times \sqrt{4! - 4} - \sqrt{4}$$

799 : not found.

$$800 = 4 \times (4! + 4 \times 44)$$

801 : not found.

$$802 = \sqrt{4} + \sqrt{4} \times \sqrt{4! - 4}^4$$

803 : not found.

$$804 = 4! + (4! + 4)^{\sqrt{4}} - 4$$

805 : not found.

$$806 = 4! + (4! + 4)^{\sqrt{4}} - \sqrt{4}$$

807 : not found.

$$808 = (\sqrt{4} + 4)! + \sqrt{4} \times 44$$

809 : not found.

$$810 = \sqrt{4} + 4! + (4! + 4)^{\sqrt{4}}$$

811 : not found.

$$812 = 4! \times 4 + (\sqrt{4} + 4)! - 4$$

813 : not found.

$$814 = 4! \times 4 + (\sqrt{4} + 4)! - \sqrt{4}$$

815 : not found.

$$816 = 4! \times (\sqrt{4} + 4 \times (4 + 4))$$

817 : not found.

$$818 = \sqrt{4} + 4! \times 4 + (\sqrt{4} + 4)!$$

819 : not found.

$$820 = 4 + 4! \times 4 + (\sqrt{4} + 4)!$$

821 : not found.

822 : not found.

823 : not found.

$$824 = (\sqrt{4} + 4)! + 4 \times (\sqrt{4} + 4)!$$

825 : not found.

826 : not found.

827 : not found.

$$828 = 44 + (4! + 4)^{\sqrt{4}}$$

829 : not found.

$$830 = 4! \times 4! + 4^4 - \sqrt{4}$$

831 : not found.

$$832 = 4 \times (\sqrt{4} + 4!) \times (4 + 4)$$

833 : not found.

$$834 = \sqrt{4} + 4! \times 4! + 4^4$$

835 : not found.

$$836 = 4 + 4! \times 4! + 4^4$$

837 : not found.

$$838 = \frac{\frac{(4+4)!}{4!} - 4}{\sqrt{4}}$$

$$839 = \frac{\frac{(4+4)!}{4!} - \sqrt{4}}{\sqrt{4}}$$

$$840 = \frac{(4+4)!}{4+44}$$

$$841 = \sqrt{4! + 4 + \frac{4}{4}}$$

$$842 = \frac{4 + \frac{(4+4)!}{4!}}{\sqrt{4}}$$

843 : not found.

$$844 = 4 + \frac{(4+4)!}{4! + 4!}$$

845 : not found.

846 : not found.

847 : not found.

$$848 = 4 \times (4^4 - 44)$$

849 : not found.

850 : not found.

851 : not found.

$$852 = \frac{4! + \frac{(4+4)!}{4!}}{\sqrt{4}}$$

853 : not found.

854 : not found.

855 : not found.

$$856 = 44 \times (4! - 4) - 4!$$

857 : not found.

858 : not found.

859 : not found.

$$860 = 4! \times \sqrt{\sqrt{4} + 4} - 4$$

861 : not found.

$$862 = 4! \times \sqrt{\sqrt{4} + 4} - \sqrt{4}$$

$$863 = \frac{\left(\frac{4!}{\sqrt{4}}\right)^4 - 4!}{4!}$$

$$864 = 4! \times (44 - (4 + 4))$$

$$865 = \frac{4! + \left(\frac{4!}{\sqrt{4}}\right)^4}{4!}$$

$$866 = \sqrt{4} + 4! \times \sqrt{\sqrt{4} + 4}^4$$

867 : not found.

$$868 = 4 + 4! \times \sqrt{\sqrt{4} + 4}^4$$

869 : not found.

870 : not found.

871 : not found.

$$872 = 4 \times \left( \sqrt{4} + \sqrt{\sqrt{\sqrt{\sqrt{\sqrt{4} + 4}}^{4!}}} \right)$$

873 : not found.

874 : not found.

875 : not found.

$$876 = 44 \times (4! - 4) - 4$$

877 : not found.

$$878 = 44 \times (4! - 4) - \sqrt{4}$$

879 : not found.

$$880 = 44 \times (4 + 4 \times 4)$$

881 : not found.

$$882 = \sqrt{4} + 44 \times (4! - 4)$$

883 : not found.

$$884 = \sqrt{4} \times 444 - 4$$

885 : not found.

$$886 = \sqrt{4} \times 444 - \sqrt{4}$$

887 : not found.

$$888 = (4 - \sqrt{4}) \times 444$$

889 : not found.

$$890 = \sqrt{4} + \sqrt{4} \times 444$$

891 : not found.

$$892 = 4 + \sqrt{4} \times 444$$

893 : not found.

894 : not found.

895 : not found.

$$896 = \sqrt{4} \times (4 + 444)$$

897 : not found.

$$898 = \sqrt{\sqrt{4 + 4! + 4} - \sqrt{4}}$$

899 : not found.

$$900 = \sqrt{4 \times (4 + 4) - \sqrt{4}}$$

901 : not found.

$$902 = \sqrt{4} + \sqrt{\sqrt{4 + 4! + 4}}$$

903 : not found.

$$904 = 4! + 44 \times (4! - 4)$$

905 : not found.

906 : not found.

907 : not found.

908 : not found.

909 : not found.

910 : not found.

911 : not found.

$$912 = 4! + \sqrt{4} \times 444$$

913 : not found.

914 : not found.

915 : not found.

916 : not found.

917 : not found.

918 : not found.

919 : not found.

$$920 = (4! - 4) \times (\sqrt{4} + 44)$$

921 : not found.

922 : not found.

923 : not found.

$$924 = 4 \times (4^4 - 4!) - 4$$

925 : not found.

$$926 = 4 \times (4^4 - 4!) - \sqrt{4}$$

927 : not found.

$$928 = 4 \times 4^4 - 4! \times 4$$

929 : not found.

$$930 = \sqrt{4} + 4 \times (4^4 - 4!)$$

931 : not found.

$$932 = 4 + 4 \times (4^4 - 4!)$$

933 : not found.

934 : not found.



935 : not found.  
 $936 = \sqrt{4} \times (4! + 444)$   
 937 : not found.  
 938 : not found.  
 939 : not found.  
 940 : not found.  
 941 : not found.  
 942 : not found.  
 943 : not found.  
 $944 = 4 \times (4 + 4^4 - 4!)$   
 945 : not found.  
 946 : not found.  
 947 : not found.  
 948 : not found.  
 949 : not found.  
 950 : not found.  
 951 : not found.  
 $952 = 4! + 4 \times (4^4 - 4!)$   
 953 : not found.  
 954 : not found.  
 955 : not found.  
 $956 = 4! \times (44 - 4) - 4$   
 957 : not found.  
 $958 = 4! \times (44 - 4) - \sqrt{4}$   
 959 : not found.  
 $960 = (4! - 4) \times (4 + 44)$   
 $961 = \sqrt{4! + \frac{4! + 4}{4}}$   
 $962 = \sqrt{4} + 4! \times (44 - 4)$   
 963 : not found.  
 $964 = 4 + 4! \times (44 - 4)$   
 965 : not found.  
 $966 = \frac{44^{\sqrt{4}} - 4}{\sqrt{4}}$   
 $967 = \frac{44^{\sqrt{4}} - \sqrt{4}}{\sqrt{4}}$   
 $968 = 44 \times \frac{44}{\sqrt{4}}$   
 $969 = \frac{\sqrt{4} + 44^{\sqrt{4}}}{\sqrt{4}}$

$$970 = \frac{4 + 44\sqrt{4}}{\sqrt{4}}$$

971 : not found.

$$972 = 4 + 44 \times (4! - \sqrt{4})$$

973 : not found.

$$974 = 4^4 + (\sqrt{4} + 4)! - \sqrt{4}$$

975 : not found.

$$976 = 4^4 + (4 + 4 - \sqrt{4})!$$

977 : not found.

$$978 = \sqrt{4} + 4^4 + (\sqrt{4} + 4)!$$

979 : not found.

$$980 = 4 \times 4^4 - 44$$

981 : not found.

$$982 = \sqrt{4!} \times \sqrt{4! + (4 + 4)!} - \sqrt{4}$$

983 : not found.

$$984 = 4! + 4! \times (44 - 4)$$

985 : not found.

$$986 = \sqrt{4} + \sqrt{4!} \times \sqrt{4! + (4 + 4)!}$$

987 : not found.

$$988 = 4 + \sqrt{4!} \times \sqrt{4! + (4 + 4)!}$$

989 : not found.

990 : not found.

991 : not found.

$$992 = 4 \times (4^4 - (4 + 4))$$

993 : not found.

$$994 = \frac{\sqrt{\sqrt{4}^{4!}} - 4!}{4} - 4!$$

995 : not found.

$$996 = 4 \times 4^4 - (4! + 4)$$

997 : not found.

$$998 = 4 \times 4^4 - (\sqrt{4} + 4!)$$

$$999 = \frac{\sqrt{\sqrt{4}^{4!}} - 4}{4} - 4!$$

$$1000 = 4 \times (4^4 - (\sqrt{4} + 4))$$

Found 731 in 1001. Elapsed 827.827 seconds.