

1.  $[1, 1, 1, 1]$  - 无解
2.  $[1, 1, 1, 2]$  - 无解
3.  $[1, 1, 1, 3]$  - 无解
4.  $[1, 1, 1, 4]$  - 无解
5.  $[1, 1, 1, 5]$  - 无解
6.  $[1, 1, 1, 6]$  - 无解
7.  $[1, 1, 1, 7]$  - 无解
8.  $[1, 1, 1, 8]$  - 1个解:
  1.  $8 * (1 + 1 + 1) = 24$
9.  $[1, 1, 1, 9]$  - 无解
10.  $[1, 1, 1, 10]$  - 无解
11.  $[1, 1, 1, 11]$  - 1个解:
  1.  $(1 + 1) * (1 + 11) = 24$
12.  $[1, 1, 1, 12]$  - 4个解:
  1.  $1 * 12 * (1 + 1) = 24$
  2.  $12 * (1 + 1) / 1 = 24$
  3.  $12 * (1 + 1 * 1) = 24$
  4.  $12 * (1 + 1 / 1) = 24$
13.  $[1, 1, 1, 13]$  - 1个解:
  1.  $(1 + 1) * (13 - 1) = 24$
14.  $[1, 1, 2, 2]$  - 无解
15.  $[1, 1, 2, 3]$  - 无解
16.  $[1, 1, 2, 4]$  - 无解
17.  $[1, 1, 2, 5]$  - 无解
18.  $[1, 1, 2, 6]$  - 2个解:
  1.  $2 * 6 * (1 + 1) = 24$
  2.  $6 * (1 + 1 + 2) = 24$
19.  $[1, 1, 2, 7]$  - 1个解:
  1.  $(1 + 2) * (1 + 7) = 24$
20.  $[1, 1, 2, 8]$  - 6个解:

1.  $8 * (2 + 1 * 1) = 24$
2.  $8 * (2 + 1 / 1) = 24$
3.  $1 * 8 * (1 + 2) = 24$
4.  $8 * (1 + 2) / 1 = 24$
5.  $8 * (1 + 1 * 2) = 24$
6.  $8 * (1 + 2 / 1) = 24$
21.  $[1, 1, 2, 9]$  - 1个解:
  1.  $(1 + 2) * (9 - 1) = 24$
22.  $[1, 1, 2, 10]$  - 2个解:
  1.  $(1 + 1) * (2 + 10) = 24$
  2.  $2 * (1 + 1 + 10) = 24$
23.  $[1, 1, 2, 11]$  - 8个解:
  1.  $2 + 11 * (1 + 1) = 24$
  2.  $2 * (11 + 1 * 1) = 24$
  3.  $2 * (11 + 1 / 1) = 24$
  4.  $1 * 2 * (1 + 11) = 24$
  5.  $2 * (1 + 11) / 1 = 24$
  6.  $2 * (1 + 1 * 11) = 24$
  7.  $2 * (1 + 11 / 1) = 24$
  8.  $1 + 1 + 2 * 11 = 24$
24.  $[1, 1, 2, 12]$  - 7个解:
  1.  $2 * 12 / (1 * 1) = 24$
  2.  $12 * (1 + 2 - 1) = 24$
  3.  $12 / (1 - 1 / 2) = 24$
  4.  $2 * (1 + 12 - 1) = 24$
  5.  $1 + 2 * 12 - 1 = 24$
  6.  $1 * 2 * 12 / 1 = 24$
  7.  $1 * 1 * 2 * 12 = 24$
25.  $[1, 1, 2, 13]$  - 8个解:
  1.  $2 * 13 - (1 + 1) = 24$
  2.  $13 * (1 + 1) - 2 = 24$
  3.  $2 * (13 - 1 * 1) = 24$
  4.  $2 * (13 - 1 / 1) = 24$
  5.  $1 * 2 * (13 - 1) = 24$
  6.  $2 * (13 - 1) / 1 = 24$
  7.  $2 * (1 * 13 - 1) = 24$
  8.  $2 * (13 / 1 - 1) = 24$
26.  $[1, 1, 3, 3]$  - 无解
27.  $[1, 1, 3, 4]$  - 1个解:
  1.  $3 * 4 * (1 + 1) = 24$
28.  $[1, 1, 3, 5]$  - 1个解:

1.  $(1 + 3) * (1 + 5) = 24$
29.  $[1, 1, 3, 6]$  - 7个解:
  1.  $6 * (3 + 1 * 1) = 24$
  2.  $6 * (3 + 1 / 1) = 24$
  3.  $1 * 6 * (1 + 3) = 24$
  4.  $6 * (1 + 3) / 1 = 24$
  5.  $6 * (1 + 1 * 3) = 24$
  6.  $6 * (1 + 3 / 1) = 24$
  7.  $3 * (1 + 1 + 6) = 24$
30.  $[1, 1, 3, 7]$  - 7个解:
  1.  $3 * (7 + 1 * 1) = 24$
  2.  $3 * (7 + 1 / 1) = 24$
  3.  $(1 + 3) * (7 - 1) = 24$
  4.  $1 * 3 * (1 + 7) = 24$
  5.  $3 * (1 + 7) / 1 = 24$
  6.  $3 * (1 + 1 * 7) = 24$
  7.  $3 * (1 + 7 / 1) = 24$
31.  $[1, 1, 3, 8]$  - 6个解:
  1.  $3 * 8 / (1 * 1) = 24$
  2.  $8 * (1 + 3 - 1) = 24$
  3.  $3 * (1 + 8 - 1) = 24$
  4.  $1 + 3 * 8 - 1 = 24$
  5.  $1 * 3 * 8 / 1 = 24$
  6.  $1 * 1 * 3 * 8 = 24$
32.  $[1, 1, 3, 9]$  - 7个解:
  1.  $(1 + 1) * (3 + 9) = 24$
  2.  $3 * (9 - 1 * 1) = 24$
  3.  $3 * (9 - 1 / 1) = 24$
  4.  $1 * 3 * (9 - 1) = 24$
  5.  $3 * (9 - 1) / 1 = 24$
  6.  $3 * (1 * 9 - 1) = 24$
  7.  $3 * (9 / 1 - 1) = 24$
33.  $[1, 1, 3, 10]$  - 1个解:
  1.  $3 * (10 - (1 + 1)) = 24$
34.  $[1, 1, 3, 11]$  - 1个解:
  1.  $(3 - 1) * (1 + 11) = 24$
35.  $[1, 1, 3, 12]$  - 6个解:
  1.  $12 * (3 - 1 * 1) = 24$
  2.  $12 * (3 - 1 / 1) = 24$
  3.  $1 * 12 * (3 - 1) = 24$
  4.  $12 * (3 - 1) / 1 = 24$
  5.  $12 * (1 * 3 - 1) = 24$

6.  $12 * (3 / 1 - 1) = 24$
36.  $[1, 1, 3, 13] - 2$  个解:  
 1.  $(1 - 3) * (1 - 13) = 24$   
 2.  $(3 - 1) * (13 - 1) = 24$
37.  $[1, 1, 4, 4] - 1$  个解:  
 1.  $4 * (1 + 1 + 4) = 24$
38.  $[1, 1, 4, 5] - 7$  个解:  
 1.  $4 * (5 + 1 * 1) = 24$   
 2.  $4 * (5 + 1 / 1) = 24$   
 3.  $5 * (1 + 4) - 1 = 24$   
 4.  $1 * 4 * (1 + 5) = 24$   
 5.  $4 * (1 + 5) / 1 = 24$   
 6.  $4 * (1 + 1 * 5) = 24$   
 7.  $4 * (1 + 5 / 1) = 24$
39.  $[1, 1, 4, 6] - 6$  个解:  
 1.  $4 * 6 / (1 * 1) = 24$   
 2.  $6 * (1 + 4 - 1) = 24$   
 3.  $4 * (1 + 6 - 1) = 24$   
 4.  $1 + 4 * 6 - 1 = 24$   
 5.  $1 * 4 * 6 / 1 = 24$   
 6.  $1 * 1 * 4 * 6 = 24$
40.  $[1, 1, 4, 7] - 7$  个解:  
 1.  $4 * (7 - 1 * 1) = 24$   
 2.  $4 * (7 - 1 / 1) = 24$   
 3.  $(4 - 1) * (1 + 7) = 24$   
 4.  $1 * 4 * (7 - 1) = 24$   
 5.  $4 * (7 - 1) / 1 = 24$   
 6.  $4 * (1 * 7 - 1) = 24$   
 7.  $4 * (7 / 1 - 1) = 24$
41.  $[1, 1, 4, 8] - 8$  个解:  
 1.  $(1 + 1) * (4 + 8) = 24$   
 2.  $4 * (8 - (1 + 1)) = 24$   
 3.  $8 * (4 - 1 * 1) = 24$   
 4.  $8 * (4 - 1 / 1) = 24$   
 5.  $1 * 8 * (4 - 1) = 24$   
 6.  $8 * (4 - 1) / 1 = 24$   
 7.  $8 * (1 * 4 - 1) = 24$   
 8.  $8 * (4 / 1 - 1) = 24$
42.  $[1, 1, 4, 9] - 2$  个解:  
 1.  $(1 - 4) * (1 - 9) = 24$   
 2.  $(4 - 1) * (9 - 1) = 24$

43.  $[1, 1, 4, 10] - 1$  个解:  
 1.  $4 + 10 * (1 + 1) = 24$
44.  $[1, 1, 4, 11] -$  无解
45.  $[1, 1, 4, 12] - 2$  个解:  
 1.  $4 * 12 / (1 + 1) = 24$   
 2.  $12 * (4 - (1 + 1)) = 24$
46.  $[1, 1, 4, 13] -$  无解
47.  $[1, 1, 5, 5] - 8$  个解:  
 1.  $5 * 5 - 1 * 1 = 24$   
 2.  $5 * 5 - 1 / 1 = 24$   
 3.  $(1 + 5) * (5 - 1) = 24$   
 4.  $(5 - 1) * (1 + 5) = 24$   
 5.  $1 * (5 * 5 - 1) = 24$   
 6.  $(5 * 5 - 1) / 1 = 24$   
 7.  $1 * 5 * 5 - 1 = 24$   
 8.  $5 * 5 / 1 - 1 = 24$
48.  $[1, 1, 5, 6] - 7$  个解:  
 1.  $6 * (5 - 1 * 1) = 24$   
 2.  $6 * (5 - 1 / 1) = 24$   
 3.  $1 * 6 * (5 - 1) = 24$   
 4.  $6 * (5 - 1) / 1 = 24$   
 5.  $6 * (1 * 5 - 1) = 24$   
 6.  $6 * (5 / 1 - 1) = 24$   
 7.  $5 * (6 - 1) - 1 = 24$
49.  $[1, 1, 5, 7] - 3$  个解:  
 1.  $(1 + 1) * (5 + 7) = 24$   
 2.  $(1 - 5) * (1 - 7) = 24$   
 3.  $(5 - 1) * (7 - 1) = 24$
50.  $[1, 1, 5, 8] - 1$  个解:  
 1.  $8 * (5 - (1 + 1)) = 24$
51.  $[1, 1, 5, 9] -$  无解
52.  $[1, 1, 5, 10] -$  无解
53.  $[1, 1, 5, 11] -$  无解
54.  $[1, 1, 5, 12] -$  无解
55.  $[1, 1, 5, 13] -$  无解
56.  $[1, 1, 6, 6] - 2$  个解:

1.  $(1 + 1) * (6 + 6) = 24$   
 2.  $6 * (6 - (1 + 1)) = 24$
57.  $[1, 1, 6, 7] -$  无解
58.  $[1, 1, 6, 8] - 1$  个解:  
 1.  $6 * 8 / (1 + 1) = 24$
59.  $[1, 1, 6, 9] - 1$  个解:  
 1.  $6 + 9 * (1 + 1) = 24$
60.  $[1, 1, 6, 10] -$  无解
61.  $[1, 1, 6, 11] -$  无解
62.  $[1, 1, 6, 12] - 1$  个解:  
 1.  $12 + 6 * (1 + 1) = 24$
63.  $[1, 1, 6, 13] -$  无解
64.  $[1, 1, 7, 7] -$  无解
65.  $[1, 1, 7, 8] -$  无解
66.  $[1, 1, 7, 9] -$  无解
67.  $[1, 1, 7, 10] - 1$  个解:  
 1.  $10 + 7 * (1 + 1) = 24$
68.  $[1, 1, 7, 11] -$  无解
69.  $[1, 1, 7, 12] -$  无解
70.  $[1, 1, 7, 13] -$  无解
71.  $[1, 1, 8, 8] - 1$  个解:  
 1.  $8 + 8 * (1 + 1) = 24$
72.  $[1, 1, 8, 9] -$  无解
73.  $[1, 1, 8, 10] -$  无解
74.  $[1, 1, 8, 11] -$  无解
75.  $[1, 1, 8, 12] -$  无解
76.  $[1, 1, 8, 13] -$  无解
77.  $[1, 1, 9, 9] -$  无解

78.  $[1, 1, 9, 10] - \text{无解}$

79.  $[1, 1, 9, 11] - \text{无解}$

80.  $[1, 1, 9, 12] - \text{无解}$

81.  $[1, 1, 9, 13] - 1 \text{ 个解:}$

1.  $1 + 1 + 9 + 13 = 24$

82.  $[1, 1, 10, 10] - \text{无解}$

83.  $[1, 1, 10, 11] - \text{无解}$

84.  $[1, 1, 10, 12] - 1 \text{ 个解:}$

1.  $1 + 1 + 10 + 12 = 24$

85.  $[1, 1, 10, 13] - 14 \text{ 个解:}$

1.  $10 + 13 + 1 * 1 = 24$

2.  $10 + 13 + 1 / 1 = 24$

3.  $13 + 1 * (1 + 10) = 24$

4.  $13 + (1 + 10) / 1 = 24$

5.  $1 + 13 + 1 * 10 = 24$

6.  $1 + 13 + 10 / 1 = 24$

7.  $10 + 1 * (1 + 13) = 24$

8.  $10 + (1 + 13) / 1 = 24$

9.  $1 + 10 + 1 * 13 = 24$

10.  $1 + 10 + 13 / 1 = 24$

11.  $1 * (1 + 10 + 13) = 24$

12.  $(1 + 10 + 13) / 1 = 24$

13.  $1 + 1 * (10 + 13) = 24$

14.  $1 + (10 + 13) / 1 = 24$

86.  $[1, 1, 11, 11] - 1 \text{ 个解:}$

1.  $1 + 1 + 11 + 11 = 24$

87.  $[1, 1, 11, 12] - 14 \text{ 个解:}$

1.  $11 + 12 + 1 * 1 = 24$

2.  $11 + 12 + 1 / 1 = 24$

3.  $12 + 1 * (1 + 11) = 24$

4.  $12 + (1 + 11) / 1 = 24$

5.  $1 + 12 + 1 * 11 = 24$

6.  $1 + 12 + 11 / 1 = 24$

7.  $11 + 1 * (1 + 12) = 24$

8.  $11 + (1 + 12) / 1 = 24$

9.  $1 + 11 + 1 * 12 = 24$

10.  $1 + 11 + 12 / 1 = 24$

11.  $1 * (1 + 11 + 12) = 24$

12.  $(1 + 11 + 12) / 1 = 24$

13.  $1 + 1 * (11 + 12) = 24$

14.  $1 + (11 + 12) / 1 = 24$

88.  $[1, 1, 11, 13] - 22 \text{ 个解:}$

1.  $(11 + 13) / (1 * 1) = 24$

2.  $13 + 11 / (1 * 1) = 24$

3.  $11 + 13 / (1 * 1) = 24$

4.  $1 * 11 + 1 * 13 = 24$

5.  $1 * 11 + 13 / 1 = 24$

6.  $13 + 1 * 11 / 1 = 24$

7.  $1 * (13 + 1 * 11) = 24$

8.  $(13 + 1 * 11) / 1 = 24$

9.  $11 / 1 + 1 * 13 = 24$

10.  $11 / 1 + 13 / 1 = 24$

11.  $1 * (13 + 11 / 1) = 24$

12.  $(13 + 11 / 1) / 1 = 24$

13.  $13 + 1 * 1 * 11 = 24$

14.  $11 + 1 * 13 / 1 = 24$

15.  $1 * (11 + 1 * 13) = 24$

16.  $(11 + 1 * 13) / 1 = 24$

17.  $1 * (11 + 13 / 1) = 24$

18.  $(11 + 13 / 1) / 1 = 24$

19.  $11 + 1 * 1 * 13 = 24$

20.  $1 + 11 + 13 - 1 = 24$

21.  $1 * (11 + 13) / 1 = 24$

22.  $1 * 1 * (11 + 13) = 24$

89.  $[1, 1, 12, 12] - 15 \text{ 个解:}$

1.  $(12 + 12) / (1 * 1) = 24$

2.  $12 + 12 / (1 * 1) = 24$

3.  $1 * 12 + 1 * 12 = 24$

4.  $1 * 12 + 12 / 1 = 24$

5.  $12 + 1 * 12 / 1 = 24$

6.  $1 * (12 + 1 * 12) = 24$

7.  $(12 + 1 * 12) / 1 = 24$

8.  $12 / 1 + 1 * 12 = 24$

9.  $12 / 1 + 12 / 1 = 24$

10.  $1 * (12 + 12 / 1) = 24$

11.  $(12 + 12 / 1) / 1 = 24$

12.  $12 + 1 * 1 * 12 = 24$

13.  $1 + 12 + 12 - 1 = 24$

14.  $1 * (12 + 12) / 1 = 24$

15.  $1 * 1 * (12 + 12) = 24$

90.  $[1, 1, 12, 13] - 18 \text{ 个解:}$

1.  $12 + 13 - 1 * 1 = 24$

2.  $12 + 13 - 1 / 1 = 24$

3.  $13 - 1 * (1 - 12) = 24$

4.  $13 - (1 - 12) / 1 = 24$

5.  $13 + 1 * (12 - 1) = 24$

6.  $13 + (12 - 1) / 1 = 24$

7.  $13 + 1 * 12 - 1 = 24$

8.  $13 + 12 / 1 - 1 = 24$

9.  $12 - 1 * (1 - 13) = 24$

10.  $12 - (1 - 13) / 1 = 24$

11.  $12 + 1 * (13 - 1) = 24$

12.  $12 + (13 - 1) / 1 = 24$

13.  $12 + 1 * 13 - 1 = 24$

14.  $12 + 13 / 1 - 1 = 24$

15.  $1 * (12 + 13 - 1) = 24$

16.  $(12 + 13 - 1) / 1 = 24$

17.  $1 * (12 + 13) - 1 = 24$

18.  $(12 + 13) / 1 - 1 = 24$

91.  $[1, 1, 13, 13] - 1 \text{ 个解:}$

1.  $13 + 13 - (1 + 1) = 24$

92.  $[1, 2, 2, 2] - \text{无解}$

93.  $[1, 2, 2, 3] - \text{无解}$

94.  $[1, 2, 2, 4] - 1 \text{ 个解:}$

1.  $2 * 4 * (1 + 2) = 24$

95.  $[1, 2, 2, 5] - 2 \text{ 个解:}$

1.  $(2 + 2) * (1 + 5) = 24$

2.  $2 * 2 * (1 + 5) = 24$

96.  $[1, 2, 2, 6] - 7 \text{ 个解:}$

1.  $(1 + 2) * (2 + 6) = 24$

2.  $6 * (2 + 1 * 2) = 24$

3.  $6 * (2 + 2 / 1) = 24$

4.  $1 * 6 * (2 + 2) = 24$

5.  $6 * (2 + 2) / 1 = 24$

6.  $1 * 2 * 2 * 6 = 24$

7.  $2 * 2 * 6 / 1 = 24$

97.  $[1, 2, 2, 7] - 2 \text{ 个解:}$

1.  $(2 + 2) * (7 - 1) = 24$

2.  $2 * 2 * (7 - 1) = 24$

98.  $[1, 2, 2, 8] - 2 \text{ 个解:}$

1.  $8 * (2 + 2 - 1) = 24$

2.  $8 * (2 * 2 - 1) = 24$

99.  $[1, 2, 2, 9] - 1 \text{ 个解:}$

1.  $2 * (1 + 2 + 9) = 24$

100.  $[1, 2, 2, 10] - 8$  个解:

1.  $(1 + 2) * (10 - 2) = 24$
2.  $2 * (10 + 1 * 2) = 24$
3.  $2 * (10 + 2 / 1) = 24$
4.  $2 + 2 * (1 + 10) = 24$
5.  $2 * (2 + 1 * 10) = 24$
6.  $2 * (2 + 10 / 1) = 24$
7.  $1 * 2 * (2 + 10) = 24$
8.  $2 * (2 + 10) / 1 = 24$

101.  $[1, 2, 2, 11] - 7$  个解:

1.  $1 * 2 + 2 * 11 = 24$
2.  $2 / 1 + 2 * 11 = 24$
3.  $2 * (2 + 11 - 1) = 24$
4.  $2 + 1 * 2 * 11 = 24$
5.  $2 + 2 * 11 / 1 = 24$
6.  $1 * (2 + 2 * 11) = 24$
7.  $(2 + 2 * 11) / 1 = 24$

102.  $[1, 2, 2, 12] - 6$  个解:

1.  $2 * 12 / (2 - 1) = 24$
2.  $2 * 12 * (2 - 1) = 24$
3.  $12 * (1 + 2 / 2) = 24$
4.  $2 * (1 + 12) - 2 = 24$
5.  $2 - 2 * (1 - 12) = 24$
6.  $2 + 2 * (12 - 1) = 24$

103.  $[1, 2, 2, 13] - 7$  个解:

1.  $2 * 13 - 1 * 2 = 24$
2.  $2 * 13 - 2 / 1 = 24$
3.  $2 * (1 + 13 - 2) = 24$
4.  $1 * 2 * 13 - 2 = 24$
5.  $2 * 13 / 1 - 2 = 24$
6.  $1 * (2 * 13 - 2) = 24$
7.  $(2 * 13 - 2) / 1 = 24$

104.  $[1, 2, 3, 3] - 1$  个解:

1.  $2 * 3 * (1 + 3) = 24$

105.  $[1, 2, 3, 4] - 4$  个解:

1.  $(1 + 3) * (2 + 4) = 24$
2.  $4 * (1 + 2 + 3) = 24$
3.  $1 * 2 * 3 * 4 = 24$
4.  $2 * 3 * 4 / 1 = 24$

106.  $[1, 2, 3, 5] - 4$  个解:

1.  $(1 + 2) * (3 + 5) = 24$
2.  $5 * (2 + 3) - 1 = 24$
3.  $2 * 3 * (5 - 1) = 24$

$$4. 3 * (1 + 2 + 5) = 24$$

107.  $[1, 2, 3, 6] - 8$  个解:

1.  $3 * (6 + 1 * 2) = 24$
2.  $3 * (6 + 2 / 1) = 24$
3.  $2 * 6 * (3 - 1) = 24$
4.  $6 * (2 + 3 - 1) = 24$
5.  $3 * (2 + 1 * 6) = 24$
6.  $3 * (2 + 6 / 1) = 24$
7.  $1 * 3 * (2 + 6) = 24$
8.  $3 * (2 + 6) / 1 = 24$

108.  $[1, 2, 3, 7] - 3$  个解:

1.  $3 + 7 * (1 + 2) = 24$
2.  $3 * (2 + 7 - 1) = 24$
3.  $1 + 2 + 3 * 7 = 24$

109.  $[1, 2, 3, 8] - 5$  个解:

1.  $3 * 8 / (2 - 1) = 24$
2.  $3 * 8 * (2 - 1) = 24$
3.  $(1 + 3) * (8 - 2) = 24$
4.  $8 / (1 - 2 / 3) = 24$
5.  $2 * (1 + 3 + 8) = 24$

110.  $[1, 2, 3, 9] - 9$  个解:

1.  $3 * 9 - (1 + 2) = 24$
2.  $9 * (1 + 2) - 3 = 24$
3.  $2 * (9 + 1 * 3) = 24$
4.  $2 * (9 + 3 / 1) = 24$
5.  $3 * (1 + 9 - 2) = 24$
6.  $2 * (3 + 1 * 9) = 24$
7.  $2 * (3 + 9 / 1) = 24$
8.  $1 * 2 * (3 + 9) = 24$
9.  $2 * (3 + 9) / 1 = 24$

111.  $[1, 2, 3, 10] - 9$  个解:

1.  $3 * (10 - 1 * 2) = 24$
2.  $3 * (10 - 2 / 1) = 24$
3.  $(3 - 1) * (2 + 10) = 24$
4.  $3 * (1 * 10 - 2) = 24$
5.  $3 * (10 / 1 - 2) = 24$
6.  $1 * 3 * (10 - 2) = 24$
7.  $3 * (10 - 2) / 1 = 24$
8.  $1 + 3 + 2 * 10 = 24$
9.  $2 * (3 + 10 - 1) = 24$

112.  $[1, 2, 3, 11] - 5$  个解:

1.  $(1 + 2) * (11 - 3) = 24$
2.  $3 * (11 - (1 + 2)) = 24$

$$3. 2 - 11 * (1 - 3) = 24$$

$$4. 2 + 11 * (3 - 1) = 24$$

$$5. 3 + 2 * 11 - 1 = 24$$

113.  $[1, 2, 3, 12] - 3$  个解:

1.  $12 * (1 + 3 - 2) = 24$
2.  $12 * (1 + 3) / 2 = 24$
3.  $12 / (3 / 2 - 1) = 24$

114.  $[1, 2, 3, 13] - 2$  个解:

1.  $13 * (3 - 1) - 2 = 24$
2.  $1 + 2 * 13 - 3 = 24$

115.  $[1, 2, 4, 4] - 8$  个解:

1.  $(1 + 2) * (4 + 4) = 24$
2.  $4 * (4 + 1 * 2) = 24$
3.  $4 * (4 + 2 / 1) = 24$
4.  $2 * 4 * (4 - 1) = 24$
5.  $4 * (2 + 1 * 4) = 24$
6.  $4 * (2 + 4 / 1) = 24$
7.  $1 * 4 * (2 + 4) = 24$
8.  $4 * (2 + 4) / 1 = 24$

116.  $[1, 2, 4, 5] - 2$  个解:

1.  $(2 + 4) * (5 - 1) = 24$
2.  $4 * (2 + 5 - 1) = 24$

117.  $[1, 2, 4, 6] - 3$  个解:

1.  $4 * 6 / (2 - 1) = 24$
2.  $4 * 6 * (2 - 1) = 24$
3.  $(4 - 1) * (2 + 6) = 24$

118.  $[1, 2, 4, 7] - 2$  个解:

1.  $4 * (1 + 7 - 2) = 24$
2.  $2 * (1 + 4 + 7) = 24$

119.  $[1, 2, 4, 8] - 14$  个解:

1.  $4 * (8 - 1 * 2) = 24$
2.  $4 * (8 - 2 / 1) = 24$
3.  $8 * (1 + 4 - 2) = 24$
4.  $2 * (8 + 1 * 4) = 24$
5.  $2 * (8 + 4 / 1) = 24$
6.  $8 * (1 + 4 / 2) = 24$
7.  $4 * (1 * 8 - 2) = 24$
8.  $2 * (4 + 1 * 8) = 24$
9.  $4 * (8 / 1 - 2) = 24$
10.  $2 * (4 + 8 / 1) = 24$
11.  $1 * 4 * (8 - 2) = 24$
12.  $4 * (8 - 2) / 1 = 24$

$$13. 1 * 2 * (4 + 8) = 24$$

$$14. 2 * (4 + 8) / 1 = 24$$

120. [1, 2, 4, 9] - 3 个解:

$$1. 4 * (9 - (1 + 2)) = 24$$

$$2. 4 + 2 * (1 + 9) = 24$$

$$3. 2 * (4 + 9 - 1) = 24$$

121. [1, 2, 4, 10] - 9 个解:

$$1. (1 - 4) * (2 - 10) = 24$$

$$2. (4 - 1) * (10 - 2) = 24$$

$$3. 1 * 4 + 2 * 10 = 24$$

$$4. 4 / 1 + 2 * 10 = 24$$

$$5. 4 + 1 * 2 * 10 = 24$$

$$6. 4 + 2 * 10 / 1 = 24$$

$$7. 1 * (4 + 2 * 10) = 24$$

$$8. (4 + 2 * 10) / 1 = 24$$

$$9. 4 * (1 + 10 / 2) = 24$$

122. [1, 2, 4, 11] - 4 个解:

$$1. (4 - 2) * (1 + 11) = 24$$

$$2. 4 * (1 + 11) / 2 = 24$$

$$3. 4 - 2 * (1 - 11) = 24$$

$$4. 4 + 2 * (11 - 1) = 24$$

123. [1, 2, 4, 12] - 11 个解:

$$1. (1 + 2) * (12 - 4) = 24$$

$$2. 12 + 4 * (1 + 2) = 24$$

$$3. 4 * 12 / (1 * 2) = 24$$

$$4. 12 * (4 - 1 * 2) = 24$$

$$5. 12 * (4 - 2 / 1) = 24$$

$$6. 12 * (1 * 4 - 2) = 24$$

$$7. 12 * (4 / 1 - 2) = 24$$

$$8. 1 * 12 * (4 - 2) = 24$$

$$9. 12 * (4 - 2) / 1 = 24$$

$$10. 12 / (1 - 2 / 4) = 24$$

$$11. 1 * 4 * 12 / 2 = 24$$

124. [1, 2, 4, 13] - 4 个解:

$$1. (2 - 4) * (1 - 13) = 24$$

$$2. (4 - 2) * (13 - 1) = 24$$

$$3. 2 * (1 + 13) - 4 = 24$$

$$4. 4 * (13 - 1) / 2 = 24$$

125. [1, 2, 5, 5] - 1 个解:

$$1. 1 + 5 * 5 - 2 = 24$$

126. [1, 2, 5, 6] - 3 个解:

$$1. (1 + 5) * (6 - 2) = 24$$

$$2. 6 * (1 + 5 - 2) = 24$$

$$3. 2 * (1 + 5 + 6) = 24$$

127. [1, 2, 5, 7] - 8 个解:

$$1. 2 * (7 + 1 * 5) = 24$$

$$2. 2 * (7 + 5 / 1) = 24$$

$$3. (5 - 2) * (1 + 7) = 24$$

$$4. 2 * (5 + 1 * 7) = 24$$

$$5. 2 * (5 + 7 / 1) = 24$$

$$6. 5 * (7 - 2) - 1 = 24$$

$$7. 1 * 2 * (5 + 7) = 24$$

$$8. 2 * (5 + 7) / 1 = 24$$

128. [1, 2, 5, 8] - 10 个解:

$$1. 8 * (5 - 1 * 2) = 24$$

$$2. 8 * (5 - 2 / 1) = 24$$

$$3. 8 * (1 + 5) / 2 = 24$$

$$4. (1 - 5) * (2 - 8) = 24$$

$$5. (5 - 1) * (8 - 2) = 24$$

$$6. 8 * (1 * 5 - 2) = 24$$

$$7. 8 * (5 / 1 - 2) = 24$$

$$8. 1 * 8 * (5 - 2) = 24$$

$$9. 8 * (5 - 2) / 1 = 24$$

$$10. 2 * (5 + 8 - 1) = 24$$

129. [1, 2, 5, 9] - 4 个解:

$$1. 9 + 5 * (1 + 2) = 24$$

$$2. (2 - 5) * (1 - 9) = 24$$

$$3. (5 - 2) * (9 - 1) = 24$$

$$4. 1 + 5 + 2 * 9 = 24$$

130. [1, 2, 5, 10] - 2 个解:

$$1. 5 + 2 * 10 - 1 = 24$$

$$2. 5 * 10 / 2 - 1 = 24$$

131. [1, 2, 5, 11] - 无解

132. [1, 2, 5, 12] - 3 个解:

$$1. 12 * (5 - (1 + 2)) = 24$$

$$2. 12 + 2 * (1 + 5) = 24$$

$$3. 12 * (5 - 1) / 2 = 24$$

133. [1, 2, 5, 13] - 2 个解:

$$1. (1 + 2) * (13 - 5) = 24$$

$$2. 1 + 13 + 2 * 5 = 24$$

134. [1, 2, 6, 6] - 12 个解:

$$1. 6 + 6 * (1 + 2) = 24$$

$$2. 6 * (6 - 1 * 2) = 24$$

$$3. 6 * (6 - 2 / 1) = 24$$

$$4. 6 * (1 * 6 - 2) = 24$$

$$5. 2 * (6 + 1 * 6) = 24$$

$$6. 6 * (6 / 1 - 2) = 24$$

$$7. 2 * (6 + 6 / 1) = 24$$

$$8. 1 * 6 * (6 - 2) = 24$$

$$9. 6 * (6 - 2) / 1 = 24$$

$$10. 6 * (1 + 6 / 2) = 24$$

$$11. 1 * 2 * (6 + 6) = 24$$

$$12. 2 * (6 + 6) / 1 = 24$$

135. [1, 2, 6, 7] - 5 个解:

$$1. 6 * (7 - (1 + 2)) = 24$$

$$2. (2 - 6) * (1 - 7) = 24$$

$$3. (6 - 2) * (7 - 1) = 24$$

$$4. 6 * (1 + 7) / 2 = 24$$

$$5. 2 * (6 + 7 - 1) = 24$$

136. [1, 2, 6, 8] - 4 个解:

$$1. 8 * (6 - (1 + 2)) = 24$$

$$2. 6 * 8 / (1 * 2) = 24$$

$$3. 6 + 2 * (1 + 8) = 24$$

$$4. 1 * 6 * 8 / 2 = 24$$

137. [1, 2, 6, 9] - 7 个解:

$$1. 1 * 6 + 2 * 9 = 24$$

$$2. 6 / 1 + 2 * 9 = 24$$

$$3. 6 * (9 - 1) / 2 = 24$$

$$4. 6 + 1 * 2 * 9 = 24$$

$$5. 6 + 2 * 9 / 1 = 24$$

$$6. 1 * (6 + 2 * 9) = 24$$

$$7. (6 + 2 * 9) / 1 = 24$$

138. [1, 2, 6, 10] - 5 个解:

$$1. 10 * (1 + 2) - 6 = 24$$

$$2. 10 + 2 * (1 + 6) = 24$$

$$3. 6 - 2 * (1 - 10) = 24$$

$$4. 6 + 2 * (10 - 1) = 24$$

$$5. 6 * (10 / 2 - 1) = 24$$

139. [1, 2, 6, 11] - 1 个解:

$$1. 1 + 11 + 2 * 6 = 24$$

140. [1, 2, 6, 12] - 8 个解:

$$1. 6 * 12 / (1 + 2) = 24$$

$$2. 2 * 6 + 1 * 12 = 24$$

$$3. 2 * 6 + 12 / 1 = 24$$

$$4. 12 + 1 * 2 * 6 = 24$$

$$5. 12 + 2 * 6 / 1 = 24$$

6.  $1 * (12 + 2 * 6) = 24$   
 7.  $(12 + 2 * 6) / 1 = 24$   
 8.  $12 * (6 / 2 - 1) = 24$
141.  $[1, 2, 6, 13] - 1$  个解:  
 1.  $13 + 2 * 6 - 1 = 24$
142.  $[1, 2, 7, 7] - 1$  个解:  
 1.  $(7 * 7 - 1) / 2 = 24$
143.  $[1, 2, 7, 8] - 3$  个解:  
 1.  $8 + 2 * (1 + 7) = 24$   
 2.  $8 * (7 - 1) / 2 = 24$   
 3.  $1 + 7 + 2 * 8 = 24$
144.  $[1, 2, 7, 9] - 2$  个解:  
 1.  $1 + 9 + 2 * 7 = 24$   
 2.  $7 + 2 * 9 - 1 = 24$
145.  $[1, 2, 7, 10] - 6$  个解:  
 1.  $2 * 7 + 1 * 10 = 24$   
 2.  $2 * 7 + 10 / 1 = 24$   
 3.  $10 + 1 * 2 * 7 = 24$   
 4.  $10 + 2 * 7 / 1 = 24$   
 5.  $1 * (10 + 2 * 7) = 24$   
 6.  $(10 + 2 * 7) / 1 = 24$
146.  $[1, 2, 7, 11] - 1$  个解:  
 1.  $11 + 2 * 7 - 1 = 24$
147.  $[1, 2, 7, 12] - 2$  个解:  
 1.  $12 - 2 * (1 - 7) = 24$   
 2.  $12 + 2 * (7 - 1) = 24$
148.  $[1, 2, 7, 13] -$  无解
149.  $[1, 2, 8, 8] - 9$  个解:  
 1.  $1 * 8 + 2 * 8 = 24$   
 2.  $8 / 1 + 2 * 8 = 24$   
 3.  $2 * 8 + 1 * 8 = 24$   
 4.  $2 * 8 + 8 / 1 = 24$   
 5.  $8 + 1 * 2 * 8 = 24$   
 6.  $8 + 2 * 8 / 1 = 24$   
 7.  $1 * (8 + 2 * 8) = 24$   
 8.  $(8 + 2 * 8) / 1 = 24$   
 9.  $8 * (8 / 2 - 1) = 24$
150.  $[1, 2, 8, 9] - 4$  个解:  
 1.  $8 * 9 / (1 + 2) = 24$

2.  $9 + 2 * 8 - 1 = 24$   
 3.  $8 - 2 * (1 - 9) = 24$   
 4.  $8 + 2 * (9 - 1) = 24$
151.  $[1, 2, 8, 10] - 2$  个解:  
 1.  $10 - 2 * (1 - 8) = 24$   
 2.  $10 + 2 * (8 - 1) = 24$
152.  $[1, 2, 8, 11] -$  无解
153.  $[1, 2, 8, 12] -$  无解
154.  $[1, 2, 8, 13] - 1$  个解:  
 1.  $1 + 2 + 8 + 13 = 24$
155.  $[1, 2, 9, 9] -$  无解
156.  $[1, 2, 9, 10] -$  无解
157.  $[1, 2, 9, 11] - 1$  个解:  
 1.  $11 * (1 + 2) - 9 = 24$
158.  $[1, 2, 9, 12] - 1$  个解:  
 1.  $1 + 2 + 9 + 12 = 24$
159.  $[1, 2, 9, 13] - 14$  个解:  
 1.  $9 + 13 + 1 * 2 = 24$   
 2.  $9 + 13 + 2 / 1 = 24$   
 3.  $2 + 13 + 1 * 9 = 24$   
 4.  $2 + 13 + 9 / 1 = 24$   
 5.  $13 + 1 * (2 + 9) = 24$   
 6.  $13 + (2 + 9) / 1 = 24$   
 7.  $2 + 9 + 1 * 13 = 24$   
 8.  $2 + 9 + 13 / 1 = 24$   
 9.  $9 + 1 * (2 + 13) = 24$   
 10.  $9 + (2 + 13) / 1 = 24$   
 11.  $2 + 1 * (9 + 13) = 24$   
 12.  $2 + (9 + 13) / 1 = 24$   
 13.  $1 * (2 + 9 + 13) = 24$   
 14.  $(2 + 9 + 13) / 1 = 24$
160.  $[1, 2, 10, 10] -$  无解
161.  $[1, 2, 10, 11] - 1$  个解:  
 1.  $1 + 2 + 10 + 11 = 24$
162.  $[1, 2, 10, 12] - 14$  个解:  
 1.  $10 + 12 + 1 * 2 = 24$   
 2.  $10 + 12 + 2 / 1 = 24$

3.  $2 + 12 + 1 * 10 = 24$   
 4.  $2 + 12 + 10 / 1 = 24$   
 5.  $12 + 1 * (2 + 10) = 24$   
 6.  $12 + (2 + 10) / 1 = 24$   
 7.  $2 + 10 + 1 * 12 = 24$   
 8.  $2 + 10 + 12 / 1 = 24$   
 9.  $10 + 1 * (2 + 12) = 24$   
 10.  $10 + (2 + 12) / 1 = 24$   
 11.  $2 + 1 * (10 + 12) = 24$   
 12.  $2 + (10 + 12) / 1 = 24$   
 13.  $1 * (2 + 10 + 12) = 24$   
 14.  $(2 + 10 + 12) / 1 = 24$
163.  $[1, 2, 10, 13] - 1$  个解:  
 1.  $2 + 10 + 13 - 1 = 24$
164.  $[1, 2, 11, 11] - 10$  个解:  
 1.  $11 + 11 + 1 * 2 = 24$   
 2.  $11 + 11 + 2 / 1 = 24$   
 3.  $2 + 11 + 1 * 11 = 24$   
 4.  $2 + 11 + 11 / 1 = 24$   
 5.  $11 + 1 * (2 + 11) = 24$   
 6.  $11 + (2 + 11) / 1 = 24$   
 7.  $2 + 1 * (11 + 11) = 24$   
 8.  $2 + (11 + 11) / 1 = 24$   
 9.  $1 * (2 + 11 + 11) = 24$   
 10.  $(2 + 11 + 11) / 1 = 24$
165.  $[1, 2, 11, 12] - 2$  个解:  
 1.  $2 + 11 + 12 - 1 = 24$   
 2.  $2 / (1 - 11 / 12) = 24$
166.  $[1, 2, 11, 13] - 10$  个解:  
 1.  $13 - 11 * (1 - 2) = 24$   
 2.  $13 - 11 / (1 - 2) = 24$   
 3.  $11 - 13 * (1 - 2) = 24$   
 4.  $11 - 13 / (1 - 2) = 24$   
 5.  $(2 - 1) * (11 + 13) = 24$   
 6.  $(11 + 13) / (2 - 1) = 24$   
 7.  $13 + 11 * (2 - 1) = 24$   
 8.  $13 + 11 / (2 - 1) = 24$   
 9.  $11 + 13 * (2 - 1) = 24$   
 10.  $11 + 13 / (2 - 1) = 24$
167.  $[1, 2, 12, 12] - 7$  个解:  
 1.  $12 * (1 + 2) - 12 = 24$   
 2.  $12 - 12 * (1 - 2) = 24$   
 3.  $12 - 12 / (1 - 2) = 24$   
 4.  $(2 - 1) * (12 + 12) = 24$

5.  $(12 + 12) / (2 - 1) = 24$   
 6.  $12 + 12 * (2 - 1) = 24$   
 7.  $12 + 12 / (2 - 1) = 24$
168.  $[1, 2, 12, 13] - 2$  个解:  
 1.  $1 + 12 + 13 - 2 = 24$   
 2.  $2 / (13 / 12 - 1) = 24$
169.  $[1, 2, 13, 13] - 12$  个解:  
 1.  $13 + 13 - 1 * 2 = 24$   
 2.  $13 + 13 - 2 / 1 = 24$   
 3.  $13 + 1 * 13 - 2 = 24$   
 4.  $13 + 13 / 1 - 2 = 24$   
 5.  $13 - 1 * (2 - 13) = 24$   
 6.  $13 - (2 - 13) / 1 = 24$   
 7.  $13 + 1 * (13 - 2) = 24$   
 8.  $13 + (13 - 2) / 1 = 24$   
 9.  $1 * (13 + 13) - 2 = 24$   
 10.  $(13 + 13) / 1 - 2 = 24$   
 11.  $1 * (13 + 13 - 2) = 24$   
 12.  $(13 + 13 - 2) / 1 = 24$
170.  $[1, 3, 3, 3] - 3$  个解:  
 1.  $(1 + 3) * (3 + 3) = 24$   
 2.  $(3 + 3) * (1 + 3) = 24$   
 3.  $3 * (3 * 3 - 1) = 24$
171.  $[1, 3, 3, 4] - 6$  个解:  
 1.  $3 * 4 * (3 - 1) = 24$   
 2.  $4 * (3 + 1 * 3) = 24$   
 3.  $4 * (3 + 3 / 1) = 24$   
 4.  $1 * 4 * (3 + 3) = 24$   
 5.  $4 * (3 + 3) / 1 = 24$   
 6.  $3 * (1 + 3 + 4) = 24$
172.  $[1, 3, 3, 5] - 7$  个解:  
 1.  $3 * (5 + 1 * 3) = 24$   
 2.  $3 * (5 + 3 / 1) = 24$   
 3.  $(3 + 3) * (5 - 1) = 24$   
 4.  $3 * (3 + 1 * 5) = 24$   
 5.  $3 * (3 + 5 / 1) = 24$   
 6.  $1 * 3 * (3 + 5) = 24$   
 7.  $3 * (3 + 5) / 1 = 24$
173.  $[1, 3, 3, 6] - 2$  个解:  
 1.  $3 + 3 * (1 + 6) = 24$   
 2.  $3 * (3 + 6 - 1) = 24$
174.  $[1, 3, 3, 7] - 6$  个解:

1.  $1 * 3 + 3 * 7 = 24$   
 2.  $3 / 1 + 3 * 7 = 24$   
 3.  $3 + 1 * 3 * 7 = 24$   
 4.  $3 + 3 * 7 / 1 = 24$   
 5.  $1 * (3 + 3 * 7) = 24$   
 6.  $(3 + 3 * 7) / 1 = 24$
175.  $[1, 3, 3, 8] - 3$  个解:  
 1.  $3 * (1 + 8) - 3 = 24$   
 2.  $3 - 3 * (1 - 8) = 24$   
 3.  $3 + 3 * (8 - 1) = 24$
176.  $[1, 3, 3, 9] - 9$  个解:  
 1.  $(1 + 3) * (9 - 3) = 24$   
 2.  $(3 - 1) * (3 + 9) = 24$   
 3.  $3 * 9 - 1 * 3 = 24$   
 4.  $9 * (3 - 1 / 3) = 24$   
 5.  $3 * 9 - 3 / 1 = 24$   
 6.  $1 * 3 * 9 - 3 = 24$   
 7.  $3 * 9 / 1 - 3 = 24$   
 8.  $1 * (3 * 9 - 3) = 24$   
 9.  $(3 * 9 - 3) / 1 = 24$
177.  $[1, 3, 3, 10] - 2$  个解:  
 1.  $3 * (1 + 10 - 3) = 24$   
 2.  $3 * (10 - 1) - 3 = 24$
178.  $[1, 3, 3, 11] - 6$  个解:  
 1.  $3 * (11 - 1 * 3) = 24$   
 2.  $3 * (11 - 3 / 1) = 24$   
 3.  $3 * (1 * 11 - 3) = 24$   
 4.  $3 * (11 / 1 - 3) = 24$   
 5.  $1 * 3 * (11 - 3) = 24$   
 6.  $3 * (11 - 3) / 1 = 24$
179.  $[1, 3, 3, 12] - 3$  个解:  
 1.  $12 + 3 * (1 + 3) = 24$   
 2.  $3 * (12 - (1 + 3)) = 24$   
 3.  $12 * (1 + 3 / 3) = 24$
180.  $[1, 3, 3, 13] -$  无解
181.  $[1, 3, 4, 4] - 5$  个解:  
 1.  $3 * (4 + 1 * 4) = 24$   
 2.  $3 * (4 + 4 / 1) = 24$   
 3.  $4 * (3 + 4 - 1) = 24$   
 4.  $1 * 3 * (4 + 4) = 24$   
 5.  $3 * (4 + 4) / 1 = 24$

182.  $[1, 3, 4, 5] - 4$  个解:  
 1.  $4 + 5 * (1 + 3) = 24$   
 2.  $(4 - 1) * (3 + 5) = 24$   
 3.  $3 * (4 + 5 - 1) = 24$   
 4.  $1 + 3 + 4 * 5 = 24$
183.  $[1, 3, 4, 6] - 1$  个解:  
 1.  $6 / (1 - 3 / 4) = 24$
184.  $[1, 3, 4, 7] - 5$  个解:  
 1.  $4 * 7 - (1 + 3) = 24$   
 2.  $7 * (1 + 3) - 4 = 24$   
 3.  $3 - 7 * (1 - 4) = 24$   
 4.  $3 + 7 * (4 - 1) = 24$   
 5.  $4 + 3 * 7 - 1 = 24$
185.  $[1, 3, 4, 8] - 4$  个解:  
 1.  $8 + 4 * (1 + 3) = 24$   
 2.  $(3 - 1) * (4 + 8) = 24$   
 3.  $8 / (4 / 3 - 1) = 24$   
 4.  $4 * (1 + 8 - 3) = 24$
186.  $[1, 3, 4, 9] - 9$  个解:  
 1.  $4 * (9 - 1 * 3) = 24$   
 2.  $4 * (9 - 3 / 1) = 24$   
 3.  $9 + 3 * (1 + 4) = 24$   
 4.  $9 * (4 - 1) - 3 = 24$   
 5.  $4 * (1 * 9 - 3) = 24$   
 6.  $4 * (9 / 1 - 3) = 24$   
 7.  $1 * 4 * (9 - 3) = 24$   
 8.  $4 * (9 - 3) / 1 = 24$   
 9.  $1 + 3 * 9 - 4 = 24$
187.  $[1, 3, 4, 10] - 4$  个解:  
 1.  $(1 + 3) * (10 - 4) = 24$   
 2.  $4 * (10 - (1 + 3)) = 24$   
 3.  $4 - 10 * (1 - 3) = 24$   
 4.  $4 + 10 * (3 - 1) = 24$
188.  $[1, 3, 4, 11] - 4$  个解:  
 1.  $(1 - 4) * (3 - 11) = 24$   
 2.  $(4 - 1) * (11 - 3) = 24$   
 3.  $1 + 11 + 3 * 4 = 24$   
 4.  $3 * (1 + 11 - 4) = 24$
189.  $[1, 3, 4, 12] - 14$  个解:  
 1.  $4 * 12 / (3 - 1) = 24$   
 2.  $12 * (1 + 4 - 3) = 24$   
 3.  $3 * (12 - 1 * 4) = 24$

4.  $3 * (12 - 4 / 1) = 24$
5.  $3 * 4 + 1 * 12 = 24$
6.  $3 * 4 + 12 / 1 = 24$
7.  $12 + 1 * 3 * 4 = 24$
8.  $12 + 3 * 4 / 1 = 24$
9.  $1 * (12 + 3 * 4) = 24$
10.  $(12 + 3 * 4) / 1 = 24$
11.  $3 * (1 * 12 - 4) = 24$
12.  $3 * (12 / 1 - 4) = 24$
13.  $1 * 3 * (12 - 4) = 24$
14.  $3 * (12 - 4) / 1 = 24$

190.  $[1, 3, 4, 13] - 2$  个解:

1.  $3 * (13 - (1 + 4)) = 24$
2.  $13 + 3 * 4 - 1 = 24$

191.  $[1, 3, 5, 5] -$  无解

192.  $[1, 3, 5, 6] - 2$  个解:

1.  $6 + 3 * (1 + 5) = 24$
2.  $1 + 5 + 3 * 6 = 24$

193.  $[1, 3, 5, 7] - 2$  个解:

1.  $(3 - 1) * (5 + 7) = 24$
2.  $(1 + 5) * (7 - 3) = 24$

194.  $[1, 3, 5, 8] - 3$  个解:

1.  $8 * (1 + 5 - 3) = 24$
2.  $1 + 8 + 3 * 5 = 24$
3.  $5 * (8 - 3) - 1 = 24$

195.  $[1, 3, 5, 9] - 9$  个解:

1.  $(1 - 5) * (3 - 9) = 24$
2.  $(5 - 1) * (9 - 3) = 24$
3.  $3 * 5 + 1 * 9 = 24$
4.  $3 * 5 + 9 / 1 = 24$
5.  $9 + 1 * 3 * 5 = 24$
6.  $9 + 3 * 5 / 1 = 24$
7.  $1 * (9 + 3 * 5) = 24$
8.  $(9 + 3 * 5) / 1 = 24$
9.  $9 * (1 + 5 / 3) = 24$

196.  $[1, 3, 5, 10] - 2$  个解:

1.  $3 * 10 - (1 + 5) = 24$
2.  $10 + 3 * 5 - 1 = 24$

197.  $[1, 3, 5, 11] - 2$  个解:

1.  $(1 + 3) * (11 - 5) = 24$
2.  $(5 - 3) * (1 + 11) = 24$

198.  $[1, 3, 5, 12] - 10$  个解:

1.  $12 * (5 - 1 * 3) = 24$
2.  $12 * (5 - 3 / 1) = 24$
3.  $12 * (1 + 5) / 3 = 24$
4.  $12 - 3 * (1 - 5) = 24$
5.  $12 + 3 * (5 - 1) = 24$
6.  $12 * (1 * 5 - 3) = 24$
7.  $12 * (5 / 1 - 3) = 24$
8.  $1 * 12 * (5 - 3) = 24$
9.  $12 * (5 - 3) / 1 = 24$
10.  $3 * (1 + 12 - 5) = 24$

199.  $[1, 3, 5, 13] - 8$  个解:

1.  $3 * (13 - 1 * 5) = 24$
2.  $3 * (13 - 5 / 1) = 24$
3.  $(3 - 5) * (1 - 13) = 24$
4.  $(5 - 3) * (13 - 1) = 24$
5.  $3 * (1 * 13 - 5) = 24$
6.  $3 * (13 / 1 - 5) = 24$
7.  $1 * 3 * (13 - 5) = 24$
8.  $3 * (13 - 5) / 1 = 24$

200.  $[1, 3, 6, 6] - 10$  个解:

1.  $(3 - 1) * (6 + 6) = 24$
2.  $6 * (1 + 6 - 3) = 24$
3.  $1 * 6 + 3 * 6 = 24$
4.  $6 / 1 + 3 * 6 = 24$
5.  $3 * 6 + 1 * 6 = 24$
6.  $3 * 6 + 6 / 1 = 24$
7.  $6 + 1 * 3 * 6 = 24$
8.  $6 + 3 * 6 / 1 = 24$
9.  $1 * (6 + 3 * 6) = 24$
10.  $(6 + 3 * 6) / 1 = 24$

201.  $[1, 3, 6, 7] - 10$  个解:

1.  $6 * (7 - 1 * 3) = 24$
2.  $6 * (7 - 3 / 1) = 24$
3.  $(6 - 3) * (1 + 7) = 24$
4.  $7 + 3 * 6 - 1 = 24$
5.  $6 - 3 * (1 - 7) = 24$
6.  $6 + 3 * (7 - 1) = 24$
7.  $6 * (1 * 7 - 3) = 24$
8.  $6 * (7 / 1 - 3) = 24$
9.  $1 * 6 * (7 - 3) = 24$
10.  $6 * (7 - 3) / 1 = 24$

202.  $[1, 3, 6, 8] - 9$  个解:

1.  $6 * (8 - (1 + 3)) = 24$

$$2. 6 * 8 / (3 - 1) = 24$$

$$3. 8 * (6 - 1 * 3) = 24$$

$$4. 8 * (6 - 3 / 1) = 24$$

$$5. 8 * (1 * 6 - 3) = 24$$

$$6. 8 * (6 / 1 - 3) = 24$$

$$7. 1 * 8 * (6 - 3) = 24$$

$$8. 8 * (6 - 3) / 1 = 24$$

$$9. 8 * (1 + 6 / 3) = 24$$

203.  $[1, 3, 6, 9] - 8$  个解:

1.  $6 - 9 * (1 - 3) = 24$
2.  $6 + 9 * (3 - 1) = 24$
3.  $9 - 3 * (1 - 6) = 24$
4.  $9 + 3 * (6 - 1) = 24$
5.  $(3 - 6) * (1 - 9) = 24$
6.  $(6 - 3) * (9 - 1) = 24$
7.  $3 * (1 + 9) - 6 = 24$
8.  $6 * (1 + 9 / 3) = 24$

204.  $[1, 3, 6, 10] - 6$  个解:

1.  $3 * 10 - 1 * 6 = 24$
2.  $3 * 10 - 6 / 1 = 24$
3.  $1 * 3 * 10 - 6 = 24$
4.  $3 * 10 / 1 - 6 = 24$
5.  $1 * (3 * 10 - 6) = 24$
6.  $(3 * 10 - 6) / 1 = 24$

205.  $[1, 3, 6, 11] - 2$  个解:

1.  $6 * (1 + 11) / 3 = 24$
2.  $3 * (11 - 1) - 6 = 24$

206.  $[1, 3, 6, 12] - 7$  个解:

1.  $(1 + 3) * (12 - 6) = 24$
2.  $12 * (6 - (1 + 3)) = 24$
3.  $12 - 6 * (1 - 3) = 24$
4.  $12 + 6 * (3 - 1) = 24$
5.  $6 * 12 / (1 * 3) = 24$
6.  $12 / (1 - 3 / 6) = 24$
7.  $1 * 6 * 12 / 3 = 24$

207.  $[1, 3, 6, 13] - 2$  个解:

1.  $3 * (1 + 13 - 6) = 24$
2.  $6 * (13 - 1) / 3 = 24$

208.  $[1, 3, 7, 7] - 4$  个解:

1.  $(1 - 7) * (3 - 7) = 24$
2.  $(7 - 1) * (7 - 3) = 24$
3.  $(3 - 7) * (1 - 7) = 24$
4.  $(7 - 3) * (7 - 1) = 24$



209.  $[1, 3, 7, 8] - 2$  个解:

1.  $8 * (7 - (1 + 3)) = 24$
2.  $3 / (1 - 7 / 8) = 24$

210.  $[1, 3, 7, 9] - 1$  个解:

1.  $9 * (1 + 7) / 3 = 24$

211.  $[1, 3, 7, 10] - 3$  个解:

1.  $10 - 7 * (1 - 3) = 24$
2.  $10 + 7 * (3 - 1) = 24$
3.  $1 + 3 * 10 - 7 = 24$

212.  $[1, 3, 7, 11] -$  无解

213.  $[1, 3, 7, 12] - 1$  个解:

1.  $12 * (7 - 1) / 3 = 24$

214.  $[1, 3, 7, 13] - 2$  个解:

1.  $(1 + 3) * (13 - 7) = 24$
2.  $1 + 3 + 7 + 13 = 24$

215.  $[1, 3, 8, 8] - 4$  个解:

1.  $8 * (1 + 3) - 8 = 24$
2.  $8 - 8 * (1 - 3) = 24$
3.  $8 + 8 * (3 - 1) = 24$
4.  $8 * (1 + 8) / 3 = 24$

216.  $[1, 3, 8, 9] - 3$  个解:

1.  $8 * 9 / (1 * 3) = 24$
2.  $1 * 8 * 9 / 3 = 24$
3.  $3 / (9 / 8 - 1) = 24$

217.  $[1, 3, 8, 10] - 1$  个解:

1.  $8 * (10 - 1) / 3 = 24$

218.  $[1, 3, 8, 11] - 1$  个解:

1.  $3 * 11 - (1 + 8) = 24$

219.  $[1, 3, 8, 12] - 3$  个解:

1.  $8 * 12 / (1 + 3) = 24$
2.  $8 * (12 / 3 - 1) = 24$
3.  $1 + 3 + 8 + 12 = 24$

220.  $[1, 3, 8, 13] - 14$  个解:

1.  $8 + 13 + 1 * 3 = 24$
2.  $8 + 13 + 3 / 1 = 24$
3.  $3 + 13 + 1 * 8 = 24$
4.  $3 + 13 + 8 / 1 = 24$

$$5. 13 + 1 * (3 + 8) = 24$$

$$6. 13 + (3 + 8) / 1 = 24$$

$$7. 3 + 8 + 1 * 13 = 24$$

$$8. 3 + 8 + 13 / 1 = 24$$

$$9. 8 + 1 * (3 + 13) = 24$$

$$10. 8 + (3 + 13) / 1 = 24$$

$$11. 3 + 1 * (8 + 13) = 24$$

$$12. 3 + (8 + 13) / 1 = 24$$

$$13. 1 * (3 + 8 + 13) = 24$$

$$14. (3 + 8 + 13) / 1 = 24$$

221.  $[1, 3, 9, 9] - 1$  个解:

1.  $9 * (9 - 1) / 3 = 24$

222.  $[1, 3, 9, 10] - 1$  个解:

1.  $3 * (1 + 10) - 9 = 24$

223.  $[1, 3, 9, 11] - 8$  个解:

1.  $3 * 11 - 1 * 9 = 24$
2.  $3 * 11 - 9 / 1 = 24$
3.  $1 * 3 * 11 - 9 = 24$
4.  $3 * 11 / 1 - 9 = 24$
5.  $1 * (3 * 11 - 9) = 24$
6.  $(3 * 11 - 9) / 1 = 24$
7.  $9 * (11 / 3 - 1) = 24$
8.  $1 + 3 + 9 + 11 = 24$

224.  $[1, 3, 9, 12] - 17$  个解:

1.  $9 * (1 + 3) - 12 = 24$
2.  $9 + 12 + 1 * 3 = 24$
3.  $9 + 12 + 3 / 1 = 24$
4.  $3 + 12 + 1 * 9 = 24$
5.  $3 + 12 + 9 / 1 = 24$
6.  $12 + 1 * (3 + 9) = 24$
7.  $12 + (3 + 9) / 1 = 24$
8.  $12 * (9 / 3 - 1) = 24$
9.  $3 * (12 - 1) - 9 = 24$
10.  $3 + 9 + 1 * 12 = 24$
11.  $3 + 9 + 12 / 1 = 24$
12.  $9 + 1 * (3 + 12) = 24$
13.  $9 + (3 + 12) / 1 = 24$
14.  $3 + 1 * (9 + 12) = 24$
15.  $3 + (9 + 12) / 1 = 24$
16.  $1 * (3 + 9 + 12) = 24$
17.  $(3 + 9 + 12) / 1 = 24$

225.  $[1, 3, 9, 13] - 1$  个解:

1.  $3 + 9 + 13 - 1 = 24$

226.  $[1, 3, 10, 10] - 1$  个解:

1.  $1 + 3 + 10 + 10 = 24$

227.  $[1, 3, 10, 11] - 15$  个解:

1.  $10 + 11 + 1 * 3 = 24$
2.  $10 + 11 + 3 / 1 = 24$
3.  $3 + 11 + 1 * 10 = 24$
4.  $3 + 11 + 10 / 1 = 24$
5.  $11 + 1 * (3 + 10) = 24$
6.  $11 + (3 + 10) / 1 = 24$
7.  $3 + 10 + 1 * 11 = 24$
8.  $3 + 10 + 11 / 1 = 24$
9.  $10 + 1 * (3 + 11) = 24$
10.  $10 + (3 + 11) / 1 = 24$
11.  $1 + 3 * 11 - 10 = 24$
12.  $3 + 1 * (10 + 11) = 24$
13.  $3 + (10 + 11) / 1 = 24$
14.  $1 * (3 + 10 + 11) = 24$
15.  $(3 + 10 + 11) / 1 = 24$

228.  $[1, 3, 10, 12] - 1$  个解:

1.  $3 + 10 + 12 - 1 = 24$

229.  $[1, 3, 10, 13] -$  无解

230.  $[1, 3, 11, 11] - 1$  个解:

1.  $3 + 11 + 11 - 1 = 24$

231.  $[1, 3, 11, 12] - 2$  个解:

1.  $3 * 12 - (1 + 11) = 24$
2.  $3 * (1 + 11) - 12 = 24$

232.  $[1, 3, 11, 13] -$  无解

233.  $[1, 3, 12, 12] - 6$  个解:

1.  $3 * 12 - 1 * 12 = 24$
2.  $3 * 12 - 12 / 1 = 24$
3.  $1 * 3 * 12 - 12 = 24$
4.  $3 * 12 / 1 - 12 = 24$
5.  $1 * (3 * 12 - 12) = 24$
6.  $(3 * 12 - 12) / 1 = 24$

234.  $[1, 3, 12, 13] - 2$  个解:

1.  $1 + 3 * 12 - 13 = 24$
2.  $3 * (13 - 1) - 12 = 24$

235.  $[1, 3, 13, 13] - 1$  个解:

1.  $1 + 13 + 13 - 3 = 24$

236.  $[1, 4, 4, 4] - 3$  个解:

1.  $4 + 4 * (1 + 4) = 24$
2.  $(4 - 1) * (4 + 4) = 24$
3.  $(4 + 4) * (4 - 1) = 24$

237.  $[1, 4, 4, 5] - 6$  个解:

1.  $1 * 4 + 4 * 5 = 24$
2.  $4 / 1 + 4 * 5 = 24$
3.  $4 + 1 * 4 * 5 = 24$
4.  $4 + 4 * 5 / 1 = 24$
5.  $1 * (4 + 4 * 5) = 24$
6.  $(4 + 4 * 5) / 1 = 24$

238.  $[1, 4, 4, 6] - 3$  个解:

1.  $4 * (1 + 6) - 4 = 24$
2.  $4 - 4 * (1 - 6) = 24$
3.  $4 + 4 * (6 - 1) = 24$

239.  $[1, 4, 4, 7] - 7$  个解:

1.  $4 * 7 - 1 * 4 = 24$
2.  $4 * 7 - 4 / 1 = 24$
3.  $1 + 7 + 4 * 4 = 24$
4.  $1 * 4 * 7 - 4 = 24$
5.  $4 * 7 / 1 - 4 = 24$
6.  $1 * (4 * 7 - 4) = 24$
7.  $(4 * 7 - 4) / 1 = 24$

240.  $[1, 4, 4, 8] - 7$  个解:

1.  $4 * 4 + 1 * 8 = 24$
2.  $4 * 4 + 8 / 1 = 24$
3.  $8 + 1 * 4 * 4 = 24$
4.  $8 + 4 * 4 / 1 = 24$
5.  $1 * (8 + 4 * 4) = 24$
6.  $(8 + 4 * 4) / 1 = 24$
7.  $4 * (8 - 1) - 4 = 24$

241.  $[1, 4, 4, 9] - 2$  个解:

1.  $9 + 4 * 4 - 1 = 24$
2.  $4 * (1 + 9 - 4) = 24$

242.  $[1, 4, 4, 10] - 6$  个解:

1.  $4 * (10 - 1 * 4) = 24$
2.  $4 * (10 - 4 / 1) = 24$
3.  $4 * (1 * 10 - 4) = 24$
4.  $4 * (10 / 1 - 4) = 24$
5.  $1 * 4 * (10 - 4) = 24$
6.  $4 * (10 - 4) / 1 = 24$

243.  $[1, 4, 4, 11] - 1$  个解:

$$1. 4 * (11 - (1 + 4)) = 24$$

244.  $[1, 4, 4, 12] - 5$  个解:

1.  $(1 - 4) * (4 - 12) = 24$
2.  $12 - 4 * (1 - 4) = 24$
3.  $(4 - 1) * (12 - 4) = 24$
4.  $12 + 4 * (4 - 1) = 24$
5.  $12 * (1 + 4 / 4) = 24$

245.  $[1, 4, 4, 13] -$  无解

246.  $[1, 4, 5, 5] - 3$  个解:

1.  $4 - 5 * (1 - 5) = 24$
2.  $4 + 5 * (5 - 1) = 24$
3.  $5 + 4 * 5 - 1 = 24$

247.  $[1, 4, 5, 6] - 2$  个解:

1.  $6 / (5 / 4 - 1) = 24$
2.  $4 / (1 - 5 / 6) = 24$

248.  $[1, 4, 5, 7] - 2$  个解:

1.  $7 * (5 - 1) - 4 = 24$
2.  $1 + 4 * 7 - 5 = 24$

249.  $[1, 4, 5, 8] - 3$  个解:

1.  $(1 + 5) * (8 - 4) = 24$
2.  $8 - 4 * (1 - 5) = 24$
3.  $8 + 4 * (5 - 1) = 24$

250.  $[1, 4, 5, 9] - 3$  个解:

1.  $9 - 5 * (1 - 4) = 24$
2.  $9 + 5 * (4 - 1) = 24$
3.  $5 * (9 - 4) - 1 = 24$

251.  $[1, 4, 5, 10] - 3$  个解:

1.  $(1 - 5) * (4 - 10) = 24$
2.  $(5 - 1) * (10 - 4) = 24$
3.  $4 * (1 + 10 - 5) = 24$

252.  $[1, 4, 5, 11] - 6$  个解:

1.  $4 * (11 - 1 * 5) = 24$
2.  $4 * (11 - 5 / 1) = 24$
3.  $4 * (1 * 11 - 5) = 24$
4.  $4 * (11 / 1 - 5) = 24$
5.  $1 * 4 * (11 - 5) = 24$
6.  $4 * (11 - 5) / 1 = 24$

253.  $[1, 4, 5, 12] - 2$  个解:

1.  $12 * (1 + 5 - 4) = 24$

$$2. 4 * (12 - (1 + 5)) = 24$$

254.  $[1, 4, 5, 13] - 2$  个解:

1.  $(1 - 4) * (5 - 13) = 24$
2.  $(4 - 1) * (13 - 5) = 24$

255.  $[1, 4, 6, 6] - 3$  个解:

1.  $6 * (1 + 4) - 6 = 24$
2.  $6 - 6 * (1 - 4) = 24$
3.  $6 + 6 * (4 - 1) = 24$

256.  $[1, 4, 6, 7] - 2$  个解:

1.  $6 * (1 + 7 - 4) = 24$
2.  $4 / (7 / 6 - 1) = 24$

257.  $[1, 4, 6, 8] - 8$  个解:

1.  $6 * (8 - 1 * 4) = 24$
2.  $6 * (8 - 4 / 1) = 24$
3.  $8 * (1 + 6 - 4) = 24$
4.  $8 / (1 - 4 / 6) = 24$
5.  $6 * (1 * 8 - 4) = 24$
6.  $6 * (8 / 1 - 4) = 24$
7.  $1 * 6 * (8 - 4) = 24$
8.  $6 * (8 - 4) / 1 = 24$

258.  $[1, 4, 6, 9] - 1$  个解:

1.  $6 * (9 - (1 + 4)) = 24$

259.  $[1, 4, 6, 10] - 1$  个解:

1.  $10 * (4 - 1) - 6 = 24$

260.  $[1, 4, 6, 11] - 2$  个解:

1.  $(6 - 4) * (1 + 11) = 24$
2.  $4 * (1 + 11 - 6) = 24$

261.  $[1, 4, 6, 12] - 15$  个解:

1.  $6 * 12 / (4 - 1) = 24$
2.  $12 * (6 - 1 * 4) = 24$
3.  $12 * (6 - 4 / 1) = 24$
4.  $12 * (1 * 6 - 4) = 24$
5.  $4 * (12 - 1 * 6) = 24$
6.  $12 * (6 / 1 - 4) = 24$
7.  $4 * (12 - 6 / 1) = 24$
8.  $1 * 12 * (6 - 4) = 24$
9.  $12 * (6 - 4) / 1 = 24$
10.  $12 / (6 / 4 - 1) = 24$
11.  $4 * (1 * 12 - 6) = 24$
12.  $4 * (12 / 1 - 6) = 24$
13.  $6 * (1 + 12 / 4) = 24$

$$14. 1 * 4 * (12 - 6) = 24$$

$$15. 4 * (12 - 6) / 1 = 24$$

262.  $[1, 4, 6, 13]$  - 4个解:

$$1. 4 * (13 - (1 + 6)) = 24$$

$$2. (4 - 6) * (1 - 13) = 24$$

$$3. (6 - 4) * (13 - 1) = 24$$

$$4. 1 + 4 + 6 + 13 = 24$$

263.  $[1, 4, 7, 7]$  - 2个解:

$$1. (1 + 7) * (7 - 4) = 24$$

$$2. (7 - 4) * (1 + 7) = 24$$

264.  $[1, 4, 7, 8]$  - 10个解:

$$1. 8 * (7 - 1 * 4) = 24$$

$$2. 8 * (7 - 4 / 1) = 24$$

$$3. 4 * 8 - (1 + 7) = 24$$

$$4. 4 * (1 + 7) - 8 = 24$$

$$5. (1 - 7) * (4 - 8) = 24$$

$$6. (7 - 1) * (8 - 4) = 24$$

$$7. 8 * (1 * 7 - 4) = 24$$

$$8. 8 * (7 / 1 - 4) = 24$$

$$9. 1 * 8 * (7 - 4) = 24$$

$$10. 8 * (7 - 4) / 1 = 24$$

265.  $[1, 4, 7, 9]$  - 2个解:

$$1. (4 - 7) * (1 - 9) = 24$$

$$2. (7 - 4) * (9 - 1) = 24$$

266.  $[1, 4, 7, 10]$  - 无解

267.  $[1, 4, 7, 11]$  - 1个解:

$$1. 7 * (1 + 4) - 11 = 24$$

268.  $[1, 4, 7, 12]$  - 4个解:

$$1. 12 * (7 - (1 + 4)) = 24$$

$$2. 12 * (1 + 7) / 4 = 24$$

$$3. 4 * (1 + 12 - 7) = 24$$

$$4. 1 + 4 + 7 + 12 = 24$$

269.  $[1, 4, 7, 13]$  - 20个解:

$$1. 7 + 13 + 1 * 4 = 24$$

$$2. 7 + 13 + 4 / 1 = 24$$

$$3. 4 + 13 + 1 * 7 = 24$$

$$4. 4 * (13 - 1 * 7) = 24$$

$$5. 4 + 13 + 7 / 1 = 24$$

$$6. 4 * (13 - 7 / 1) = 24$$

$$7. 13 + 1 * (4 + 7) = 24$$

$$8. 13 + (4 + 7) / 1 = 24$$

$$9. 4 + 7 + 1 * 13 = 24$$

$$10. 4 * (1 * 13 - 7) = 24$$

$$11. 4 + 7 + 13 / 1 = 24$$

$$12. 4 * (13 / 1 - 7) = 24$$

$$13. 7 + 1 * (4 + 13) = 24$$

$$14. 7 + (4 + 13) / 1 = 24$$

$$15. 4 + 1 * (7 + 13) = 24$$

$$16. 4 + (7 + 13) / 1 = 24$$

$$17. 1 * (4 + 7 + 13) = 24$$

$$18. (4 + 7 + 13) / 1 = 24$$

$$19. 1 * 4 * (13 - 7) = 24$$

$$20. 4 * (13 - 7) / 1 = 24$$

270.  $[1, 4, 8, 8]$  - 8个解:

$$1. 8 * (8 - (1 + 4)) = 24$$

$$2. 4 * 8 - 1 * 8 = 24$$

$$3. 4 * 8 - 8 / 1 = 24$$

$$4. 1 * 4 * 8 - 8 = 24$$

$$5. 4 * 8 / 1 - 8 = 24$$

$$6. 1 * (4 * 8 - 8) = 24$$

$$7. (4 * 8 - 8) / 1 = 24$$

$$8. 8 * (1 + 8 / 4) = 24$$

271.  $[1, 4, 8, 9]$  - 3个解:

$$1. 8 * 9 / (4 - 1) = 24$$

$$2. 1 + 4 * 8 - 9 = 24$$

$$3. 4 * (9 - 1) - 8 = 24$$

272.  $[1, 4, 8, 10]$  - 无解

273.  $[1, 4, 8, 11]$  - 2个解:

$$1. 8 * (1 + 11) / 4 = 24$$

$$2. 1 + 4 + 8 + 11 = 24$$

274.  $[1, 4, 8, 12]$  - 18个解:

$$1. 8 * 12 / (1 * 4) = 24$$

$$2. 8 + 12 + 1 * 4 = 24$$

$$3. 8 + 12 + 4 / 1 = 24$$

$$4. 4 * (1 + 8) - 12 = 24$$

$$5. 4 + 12 + 1 * 8 = 24$$

$$6. 4 + 12 + 8 / 1 = 24$$

$$7. 12 + 1 * (4 + 8) = 24$$

$$8. 12 + (4 + 8) / 1 = 24$$

$$9. 12 / (1 - 4 / 8) = 24$$

$$10. 4 + 8 + 1 * 12 = 24$$

$$11. 4 + 8 + 12 / 1 = 24$$

$$12. 8 + 1 * (4 + 12) = 24$$

$$13. 8 + (4 + 12) / 1 = 24$$

$$14. 4 + 1 * (8 + 12) = 24$$

$$15. 4 + (8 + 12) / 1 = 24$$

$$16. 1 * (4 + 8 + 12) = 24$$

$$17. (4 + 8 + 12) / 1 = 24$$

$$18. 1 * 8 * 12 / 4 = 24$$

275.  $[1, 4, 8, 13]$  - 3个解:

$$1. 4 * (1 + 13 - 8) = 24$$

$$2. 8 * (13 - 1) / 4 = 24$$

$$3. 4 + 8 + 13 - 1 = 24$$

276.  $[1, 4, 9, 9]$  - 无解

277.  $[1, 4, 9, 10]$  - 1个解:

$$1. 1 + 4 + 9 + 10 = 24$$

278.  $[1, 4, 9, 11]$  - 16个解:

$$1. 11 * (4 - 1) - 9 = 24$$

$$2. 9 + 11 + 1 * 4 = 24$$

$$3. 9 + 11 + 4 / 1 = 24$$

$$4. 4 + 11 + 1 * 9 = 24$$

$$5. 4 + 11 + 9 / 1 = 24$$

$$6. 11 + 1 * (4 + 9) = 24$$

$$7. 11 + (4 + 9) / 1 = 24$$

$$8. 4 * 9 - (1 + 11) = 24$$

$$9. 4 + 9 + 1 * 11 = 24$$

$$10. 4 + 9 + 11 / 1 = 24$$

$$11. 9 + 1 * (4 + 11) = 24$$

$$12. 9 + (4 + 11) / 1 = 24$$

$$13. 4 + 1 * (9 + 11) = 24$$

$$14. 4 + (9 + 11) / 1 = 24$$

$$15. 1 * (4 + 9 + 11) = 24$$

$$16. (4 + 9 + 11) / 1 = 24$$

279.  $[1, 4, 9, 12]$  - 8个解:

$$1. 12 * (9 - 1) / 4 = 24$$

$$2. 4 * 9 - 1 * 12 = 24$$

$$3. 4 * 9 - 12 / 1 = 24$$

$$4. 1 * 4 * 9 - 12 = 24$$

$$5. 4 * 9 / 1 - 12 = 24$$

$$6. 1 * (4 * 9 - 12) = 24$$

$$7. (4 * 9 - 12) / 1 = 24$$

$$8. 4 + 9 + 12 - 1 = 24$$

280.  $[1, 4, 9, 13]$  - 1个解:

$$1. 1 + 4 * 9 - 13 = 24$$

281.  $[1, 4, 10, 10]$  - 11个解:

$$1. 10 + 10 + 1 * 4 = 24$$

$$2. 10 + 10 + 4 / 1 = 24$$

3.  $4 + 10 + 1 * 10 = 24$   
 4.  $4 + 10 + 10 / 1 = 24$   
 5.  $10 + 1 * (4 + 10) = 24$   
 6.  $10 + (4 + 10) / 1 = 24$   
 7.  $4 + 1 * (10 + 10) = 24$   
 8.  $4 + (10 + 10) / 1 = 24$   
 9.  $1 * (4 + 10 + 10) = 24$   
 10.  $(4 + 10 + 10) / 1 = 24$   
 11.  $10 * 10 / 4 - 1 = 24$
282.  $[1, 4, 10, 11] - 1$  个解:  
 1.  $4 + 10 + 11 - 1 = 24$
283.  $[1, 4, 10, 12] - 3$  个解:  
 1.  $10 * 12 / (1 + 4) = 24$   
 2.  $4 * (10 - 1) - 12 = 24$   
 3.  $4 / (1 - 10 / 12) = 24$
284.  $[1, 4, 10, 13] -$  无解
285.  $[1, 4, 11, 11] -$  无解
286.  $[1, 4, 11, 12] -$  无解
287.  $[1, 4, 11, 13] -$  无解
288.  $[1, 4, 12, 12] - 2$  个解:  
 1.  $12 * (4 - 1) - 12 = 24$   
 2.  $12 * (12 / 4 - 1) = 24$
289.  $[1, 4, 12, 13] -$  无解
290.  $[1, 4, 13, 13] -$  无解
291.  $[1, 5, 5, 5] - 1$  个解:  
 1.  $5 * (5 - 1 / 5) = 24$
292.  $[1, 5, 5, 6] - 2$  个解:  
 1.  $5 * 6 - (1 + 5) = 24$   
 2.  $5 * (1 + 5) - 6 = 24$
293.  $[1, 5, 5, 7] -$  无解
294.  $[1, 5, 5, 8] -$  无解
295.  $[1, 5, 5, 9] - 1$  个解:  
 1.  $(1 + 5) * (9 - 5) = 24$
296.  $[1, 5, 5, 10] - 1$  个解:

1.  $5 * (10 - 5) - 1 = 24$
297.  $[1, 5, 5, 11] - 2$  个解:  
 1.  $(1 - 5) * (5 - 11) = 24$   
 2.  $(5 - 1) * (11 - 5) = 24$
298.  $[1, 5, 5, 12] - 1$  个解:  
 1.  $12 * (1 + 5 / 5) = 24$
299.  $[1, 5, 5, 13] - 1$  个解:  
 1.  $1 + 5 + 5 + 13 = 24$
300.  $[1, 5, 6, 6] - 6$  个解:  
 1.  $5 * 6 - 1 * 6 = 24$   
 2.  $5 * 6 - 6 / 1 = 24$   
 3.  $1 * 5 * 6 - 6 = 24$   
 4.  $5 * 6 / 1 - 6 = 24$   
 5.  $1 * (5 * 6 - 6) = 24$   
 6.  $(5 * 6 - 6) / 1 = 24$
301.  $[1, 5, 6, 7] - 2$  个解:  
 1.  $1 + 5 * 6 - 7 = 24$   
 2.  $5 * (7 - 1) - 6 = 24$
302.  $[1, 5, 6, 8] - 1$  个解:  
 1.  $6 * (1 + 8 - 5) = 24$
303.  $[1, 5, 6, 9] - 6$  个解:  
 1.  $6 * (9 - 1 * 5) = 24$   
 2.  $6 * (9 - 5 / 1) = 24$   
 3.  $6 * (1 * 9 - 5) = 24$   
 4.  $6 * (9 / 1 - 5) = 24$   
 5.  $1 * 6 * (9 - 5) = 24$   
 6.  $6 * (9 - 5) / 1 = 24$
304.  $[1, 5, 6, 10] - 2$  个解:  
 1.  $(1 + 5) * (10 - 6) = 24$   
 2.  $6 * (10 - (1 + 5)) = 24$
305.  $[1, 5, 6, 11] - 2$  个解:  
 1.  $5 * (1 + 6) - 11 = 24$   
 2.  $5 * (11 - 6) - 1 = 24$
306.  $[1, 5, 6, 12] - 5$  个解:  
 1.  $6 * (1 + 5) - 12 = 24$   
 2.  $(1 - 5) * (6 - 12) = 24$   
 3.  $(5 - 1) * (12 - 6) = 24$   
 4.  $12 * (1 + 6 - 5) = 24$   
 5.  $1 + 5 + 6 + 12 = 24$

307.  $[1, 5, 6, 13] - 14$  个解:  
 1.  $6 + 13 + 1 * 5 = 24$   
 2.  $6 + 13 + 5 / 1 = 24$   
 3.  $5 + 13 + 1 * 6 = 24$   
 4.  $5 + 13 + 6 / 1 = 24$   
 5.  $13 + 1 * (5 + 6) = 24$   
 6.  $13 + (5 + 6) / 1 = 24$   
 7.  $5 + 6 + 1 * 13 = 24$   
 8.  $5 + 6 + 13 / 1 = 24$   
 9.  $6 + 1 * (5 + 13) = 24$   
 10.  $6 + (5 + 13) / 1 = 24$   
 11.  $5 + 1 * (6 + 13) = 24$   
 12.  $5 + (6 + 13) / 1 = 24$   
 13.  $1 * (5 + 6 + 13) = 24$   
 14.  $(5 + 6 + 13) / 1 = 24$
308.  $[1, 5, 7, 7] -$  无解
309.  $[1, 5, 7, 8] - 2$  个解:  
 1.  $(1 + 7) * (8 - 5) = 24$   
 2.  $8 * (1 + 7 - 5) = 24$
310.  $[1, 5, 7, 9] - 2$  个解:  
 1.  $(1 - 7) * (5 - 9) = 24$   
 2.  $(7 - 1) * (9 - 5) = 24$
311.  $[1, 5, 7, 10] - 2$  个解:  
 1.  $5 * 7 - (1 + 10) = 24$   
 2.  $10 * (1 + 7 / 5) = 24$
312.  $[1, 5, 7, 11] - 9$  个解:  
 1.  $(1 + 5) * (11 - 7) = 24$   
 2.  $(7 - 5) * (1 + 11) = 24$   
 3.  $5 * 7 - 1 * 11 = 24$   
 4.  $5 * 7 - 11 / 1 = 24$   
 5.  $1 * 5 * 7 - 11 = 24$   
 6.  $5 * 7 / 1 - 11 = 24$   
 7.  $1 * (5 * 7 - 11) = 24$   
 8.  $(5 * 7 - 11) / 1 = 24$   
 9.  $1 + 5 + 7 + 11 = 24$
313.  $[1, 5, 7, 12] - 22$  个解:  
 1.  $12 * (7 - 1 * 5) = 24$   
 2.  $7 + 12 + 1 * 5 = 24$   
 3.  $12 * (7 - 5 / 1) = 24$   
 4.  $7 + 12 + 5 / 1 = 24$   
 5.  $12 * (1 * 7 - 5) = 24$   
 6.  $5 + 12 + 1 * 7 = 24$

7.  $12 * (7 / 1 - 5) = 24$
8.  $5 + 12 + 7 / 1 = 24$
9.  $12 + 1 * (5 + 7) = 24$
10.  $12 + (5 + 7) / 1 = 24$
11.  $1 * 12 * (7 - 5) = 24$
12.  $12 * (7 - 5) / 1 = 24$
13.  $1 + 5 * 7 - 12 = 24$
14.  $5 + 7 + 1 * 12 = 24$
15.  $5 + 7 + 12 / 1 = 24$
16.  $7 + 1 * (5 + 12) = 24$
17.  $7 + (5 + 12) / 1 = 24$
18.  $5 + 1 * (7 + 12) = 24$
19.  $5 + (7 + 12) / 1 = 24$
20.  $1 * (5 + 7 + 12) = 24$
21.  $(5 + 7 + 12) / 1 = 24$
22.  $5 * (12 - 7) - 1 = 24$

314.  $[1, 5, 7, 13] - 5$  个解:
1.  $(1 - 5) * (7 - 13) = 24$
  2.  $(5 - 1) * (13 - 7) = 24$
  3.  $(5 - 7) * (1 - 13) = 24$
  4.  $(7 - 5) * (13 - 1) = 24$
  5.  $5 + 7 + 13 - 1 = 24$

315.  $[1, 5, 8, 8] - 7$  个解:
1.  $8 * (5 - 1) - 8 = 24$
  2.  $8 * (8 - 1 * 5) = 24$
  3.  $8 * (8 - 5 / 1) = 24$
  4.  $8 * (1 * 8 - 5) = 24$
  5.  $8 * (8 / 1 - 5) = 24$
  6.  $1 * 8 * (8 - 5) = 24$
  7.  $8 * (8 - 5) / 1 = 24$

316.  $[1, 5, 8, 9] - 4$  个解:
1.  $8 * (9 - (1 + 5)) = 24$
  2.  $(5 - 8) * (1 - 9) = 24$
  3.  $(8 - 5) * (9 - 1) = 24$
  4.  $9 / (1 - 5 / 8) = 24$

317.  $[1, 5, 8, 10] - 2$  个解:
1.  $8 * (1 + 10 / 5) = 24$
  2.  $1 + 5 + 8 + 10 = 24$

318.  $[1, 5, 8, 11] - 15$  个解:
1.  $8 + 11 + 1 * 5 = 24$
  2.  $8 + 11 + 5 / 1 = 24$
  3.  $5 * (8 - 1) - 11 = 24$
  4.  $5 + 11 + 1 * 8 = 24$
  5.  $5 + 11 + 8 / 1 = 24$

6.  $11 + 1 * (5 + 8) = 24$
7.  $11 + (5 + 8) / 1 = 24$
8.  $5 + 8 + 1 * 11 = 24$
9.  $5 + 8 + 11 / 1 = 24$
10.  $8 + 1 * (5 + 11) = 24$
11.  $8 + (5 + 11) / 1 = 24$
12.  $5 + 1 * (8 + 11) = 24$
13.  $5 + (8 + 11) / 1 = 24$
14.  $1 * (5 + 8 + 11) = 24$
15.  $(5 + 8 + 11) / 1 = 24$

319.  $[1, 5, 8, 12] - 4$  个解:
1.  $(1 + 5) * (12 - 8) = 24$
  2.  $12 * (8 - (1 + 5)) = 24$
  3.  $8 * 12 / (5 - 1) = 24$
  4.  $5 + 8 + 12 - 1 = 24$

320.  $[1, 5, 8, 13] - 1$  个解:
1.  $5 * (13 - 8) - 1 = 24$

321.  $[1, 5, 9, 9] - 1$  个解:
1.  $1 + 5 + 9 + 9 = 24$

322.  $[1, 5, 9, 10] - 14$  个解:
1.  $9 + 10 + 1 * 5 = 24$
  2.  $9 + 10 + 5 / 1 = 24$
  3.  $5 + 10 + 1 * 9 = 24$
  4.  $5 + 10 + 9 / 1 = 24$
  5.  $10 + 1 * (5 + 9) = 24$
  6.  $10 + (5 + 9) / 1 = 24$
  7.  $5 + 9 + 1 * 10 = 24$
  8.  $5 + 9 + 10 / 1 = 24$
  9.  $9 + 1 * (5 + 10) = 24$
  10.  $9 + (5 + 10) / 1 = 24$
  11.  $5 + 1 * (9 + 10) = 24$
  12.  $5 + (9 + 10) / 1 = 24$
  13.  $1 * (5 + 9 + 10) = 24$
  14.  $(5 + 9 + 10) / 1 = 24$

323.  $[1, 5, 9, 11] - 1$  个解:
1.  $5 + 9 + 11 - 1 = 24$

324.  $[1, 5, 9, 12] - 2$  个解:
1.  $9 * (5 - 1) - 12 = 24$
  2.  $12 * (1 + 9) / 5 = 24$

325.  $[1, 5, 9, 13] - 1$  个解:
1.  $(1 + 5) * (13 - 9) = 24$

326.  $[1, 5, 10, 10] - 1$  个解:
1.  $5 + 10 + 10 - 1 = 24$

327.  $[1, 5, 10, 11] - 1$  个解:
1.  $10 * (1 + 11) / 5 = 24$

328.  $[1, 5, 10, 12] - 3$  个解:
1.  $10 * 12 / (1 * 5) = 24$
  2.  $12 / (1 - 5 / 10) = 24$
  3.  $1 * 10 * 12 / 5 = 24$

329.  $[1, 5, 10, 13] - 1$  个解:
1.  $10 * (13 - 1) / 5 = 24$

330.  $[1, 5, 11, 11] - 1$  个解:
1.  $(11 * 11 - 1) / 5 = 24$

331.  $[1, 5, 11, 12] - 1$  个解:
1.  $12 * (11 - 1) / 5 = 24$

332.  $[1, 5, 11, 13] -$  无解

333.  $[1, 5, 12, 12] - 1$  个解:
1.  $12 * 12 / (1 + 5) = 24$

334.  $[1, 5, 12, 13] -$  无解

335.  $[1, 5, 13, 13] -$  无解

336.  $[1, 6, 6, 6] - 1$  个解:
1.  $6 * (6 - 1) - 6 = 24$

337.  $[1, 6, 6, 7] -$  无解

338.  $[1, 6, 6, 8] - 1$  个解:
1.  $6 / (1 - 6 / 8) = 24$

339.  $[1, 6, 6, 9] - 1$  个解:
1.  $6 * (1 + 9 - 6) = 24$

340.  $[1, 6, 6, 10] - 6$  个解:
1.  $6 * (10 - 1 * 6) = 24$
  2.  $6 * (10 - 6 / 1) = 24$
  3.  $6 * (1 * 10 - 6) = 24$
  4.  $6 * (10 / 1 - 6) = 24$
  5.  $1 * 6 * (10 - 6) = 24$
  6.  $6 * (10 - 6) / 1 = 24$

341.  $[1, 6, 6, 11] - 3$  个解:

1.  $6 * (11 - (1 + 6)) = 24$
2.  $6 * 6 - (1 + 11) = 24$
3.  $1 + 6 + 6 + 11 = 24$

342.  $[1, 6, 6, 12] - 17$  个解:

1.  $6 + 12 + 1 * 6 = 24$
2.  $6 + 12 + 6 / 1 = 24$
3.  $12 + 1 * (6 + 6) = 24$
4.  $12 + (6 + 6) / 1 = 24$
5.  $6 * 6 - 1 * 12 = 24$
6.  $6 * 6 - 12 / 1 = 24$
7.  $1 * 6 * 6 - 12 = 24$
8.  $6 * 6 / 1 - 12 = 24$
9.  $1 * (6 * 6 - 12) = 24$
10.  $(6 * 6 - 12) / 1 = 24$
11.  $12 * (1 + 6 / 6) = 24$
12.  $6 + 6 + 1 * 12 = 24$
13.  $6 + 6 + 12 / 1 = 24$
14.  $6 + 1 * (6 + 12) = 24$
15.  $6 + (6 + 12) / 1 = 24$
16.  $1 * (6 + 6 + 12) = 24$
17.  $(6 + 6 + 12) / 1 = 24$

343.  $[1, 6, 6, 13] - 2$  个解:

1.  $1 + 6 * 6 - 13 = 24$
2.  $6 + 6 + 13 - 1 = 24$

344.  $[1, 6, 7, 7] -$  无解

345.  $[1, 6, 7, 8] -$  无解

346.  $[1, 6, 7, 9] - 1$  个解:

1.  $(1 + 7) * (9 - 6) = 24$

347.  $[1, 6, 7, 10] - 4$  个解:

1.  $(1 - 7) * (6 - 10) = 24$
2.  $(7 - 1) * (10 - 6) = 24$
3.  $6 * (1 + 10 - 7) = 24$
4.  $1 + 6 + 7 + 10 = 24$

348.  $[1, 6, 7, 11] - 21$  个解:

1.  $7 * (6 - 1) - 11 = 24$
2.  $7 + 11 + 1 * 6 = 24$
3.  $7 + 11 + 6 / 1 = 24$
4.  $6 + 11 + 1 * 7 = 24$
5.  $6 * (11 - 1 * 7) = 24$
6.  $6 + 11 + 7 / 1 = 24$
7.  $6 * (11 - 7 / 1) = 24$
8.  $11 + 1 * (6 + 7) = 24$

9.  $11 + (6 + 7) / 1 = 24$
10.  $6 + 7 + 1 * 11 = 24$
11.  $6 * (1 * 11 - 7) = 24$
12.  $6 + 7 + 11 / 1 = 24$
13.  $6 * (11 / 1 - 7) = 24$
14.  $7 + 1 * (6 + 11) = 24$
15.  $7 + (6 + 11) / 1 = 24$
16.  $6 + 1 * (7 + 11) = 24$
17.  $6 + (7 + 11) / 1 = 24$
18.  $1 * (6 + 7 + 11) = 24$
19.  $(6 + 7 + 11) / 1 = 24$
20.  $1 * 6 * (11 - 7) = 24$
21.  $6 * (11 - 7) / 1 = 24$

349.  $[1, 6, 7, 12] - 4$  个解:

1.  $12 * (1 + 7 - 6) = 24$
2.  $6 * (12 - (1 + 7)) = 24$
3.  $6 * (7 - 1) - 12 = 24$
4.  $6 + 7 + 12 - 1 = 24$

350.  $[1, 6, 7, 13] -$  无解

351.  $[1, 6, 8, 8] - 2$  个解:

1.  $8 * (1 + 8 - 6) = 24$
2.  $8 / (8 / 6 - 1) = 24$

352.  $[1, 6, 8, 9] - 8$  个解:

1.  $8 * (9 - 1 * 6) = 24$
2.  $8 * (9 - 6 / 1) = 24$
3.  $8 * (1 * 9 - 6) = 24$
4.  $8 * (9 / 1 - 6) = 24$
5.  $1 * 8 * (9 - 6) = 24$
6.  $8 * (9 - 6) / 1 = 24$
7.  $8 / (1 - 6 / 9) = 24$
8.  $1 + 6 + 8 + 9 = 24$

353.  $[1, 6, 8, 10] - 16$  个解:

1.  $8 * (10 - (1 + 6)) = 24$
2.  $8 + 10 + 1 * 6 = 24$
3.  $8 + 10 + 6 / 1 = 24$
4.  $6 + 10 + 1 * 8 = 24$
5.  $6 + 10 + 8 / 1 = 24$
6.  $10 + 1 * (6 + 8) = 24$
7.  $10 + (6 + 8) / 1 = 24$
8.  $6 + 8 + 1 * 10 = 24$
9.  $6 + 8 + 10 / 1 = 24$
10.  $8 + 1 * (6 + 10) = 24$
11.  $8 + (6 + 10) / 1 = 24$
12.  $6 + 1 * (8 + 10) = 24$

13.  $6 + (8 + 10) / 1 = 24$
14.  $1 * (6 + 8 + 10) = 24$
15.  $(6 + 8 + 10) / 1 = 24$
16.  $6 / (10 / 8 - 1) = 24$

354.  $[1, 6, 8, 11] - 3$  个解:

1.  $(8 - 6) * (1 + 11) = 24$
2.  $6 * (1 + 11 - 8) = 24$
3.  $6 + 8 + 11 - 1 = 24$

355.  $[1, 6, 8, 12] - 13$  个解:

1.  $12 * (8 - 1 * 6) = 24$
2.  $12 * (8 - 6 / 1) = 24$
3.  $12 * (1 * 8 - 6) = 24$
4.  $6 * (12 - 1 * 8) = 24$
5.  $12 * (8 / 1 - 6) = 24$
6.  $6 * (12 - 8 / 1) = 24$
7.  $1 * 12 * (8 - 6) = 24$
8.  $12 * (8 - 6) / 1 = 24$
9.  $6 * (1 * 12 - 8) = 24$
10.  $6 * (12 / 1 - 8) = 24$
11.  $8 * (1 + 12 / 6) = 24$
12.  $1 * 6 * (12 - 8) = 24$
13.  $6 * (12 - 8) / 1 = 24$

356.  $[1, 6, 8, 13] - 3$  个解:

1.  $6 * (13 - (1 + 8)) = 24$
2.  $(6 - 8) * (1 - 13) = 24$
3.  $(8 - 6) * (13 - 1) = 24$

357.  $[1, 6, 9, 9] - 14$  个解:

1.  $9 + 9 + 1 * 6 = 24$
2.  $9 + 9 + 6 / 1 = 24$
3.  $(1 - 9) * (6 - 9) = 24$
4.  $(9 - 1) * (9 - 6) = 24$
5.  $6 + 9 + 1 * 9 = 24$
6.  $6 + 9 + 9 / 1 = 24$
7.  $9 + 1 * (6 + 9) = 24$
8.  $9 + (6 + 9) / 1 = 24$
9.  $(6 - 9) * (1 - 9) = 24$
10.  $(9 - 6) * (9 - 1) = 24$
11.  $6 + 1 * (9 + 9) = 24$
12.  $6 + (9 + 9) / 1 = 24$
13.  $1 * (6 + 9 + 9) = 24$
14.  $(6 + 9 + 9) / 1 = 24$

358.  $[1, 6, 9, 10] - 2$  个解:

1.  $9 * (1 + 10 / 6) = 24$
2.  $6 + 9 + 10 - 1 = 24$

359.  $[1, 6, 9, 11]$  - 无解

360.  $[1, 6, 9, 12]$  - 4 个解:

1.  $12 * (9 - (1 + 6)) = 24$
2.  $12 / (9 / 6 - 1) = 24$
3.  $6 * (1 + 12 - 9) = 24$
4.  $6 / (1 - 9 / 12) = 24$

361.  $[1, 6, 9, 13]$  - 6 个解:

1.  $6 * (13 - 1 * 9) = 24$
2.  $6 * (13 - 9 / 1) = 24$
3.  $6 * (1 * 13 - 9) = 24$
4.  $6 * (13 / 1 - 9) = 24$
5.  $1 * 6 * (13 - 9) = 24$
6.  $6 * (13 - 9) / 1 = 24$

362.  $[1, 6, 10, 10]$  - 无解

363.  $[1, 6, 10, 11]$  - 无解

364.  $[1, 6, 10, 12]$  - 1 个解:

1.  $10 * 12 / (6 - 1) = 24$

365.  $[1, 6, 10, 13]$  - 1 个解:

1.  $6 * (1 + 13 - 10) = 24$

366.  $[1, 6, 11, 11]$  - 无解

367.  $[1, 6, 11, 12]$  - 1 个解:

1.  $12 * (1 + 11) / 6 = 24$

368.  $[1, 6, 11, 13]$  - 1 个解:

1.  $(1 + 11 * 13) / 6 = 24$

369.  $[1, 6, 12, 12]$  - 3 个解:

1.  $12 * 12 / (1 * 6) = 24$
2.  $12 / (1 - 6 / 12) = 24$
3.  $1 * 12 * 12 / 6 = 24$

370.  $[1, 6, 12, 13]$  - 1 个解:

1.  $12 * (13 - 1) / 6 = 24$

371.  $[1, 6, 13, 13]$  - 无解

372.  $[1, 7, 7, 7]$  - 无解

373.  $[1, 7, 7, 8]$  - 无解

374.  $[1, 7, 7, 9]$  - 1 个解:

1.  $1 + 7 + 7 + 9 = 24$

375.  $[1, 7, 7, 10]$  - 11 个解:

1.  $(1 + 7) * (10 - 7) = 24$
2.  $7 + 10 + 1 * 7 = 24$
3.  $7 + 10 + 7 / 1 = 24$
4.  $10 + 1 * (7 + 7) = 24$
5.  $10 + (7 + 7) / 1 = 24$
6.  $7 + 7 + 1 * 10 = 24$
7.  $7 + 7 + 10 / 1 = 24$
8.  $7 + 1 * (7 + 10) = 24$
9.  $7 + (7 + 10) / 1 = 24$
10.  $1 * (7 + 7 + 10) = 24$
11.  $(7 + 7 + 10) / 1 = 24$

376.  $[1, 7, 7, 11]$  - 3 个解:

1.  $(1 - 7) * (7 - 11) = 24$
2.  $(7 - 1) * (11 - 7) = 24$
3.  $7 + 7 + 11 - 1 = 24$

377.  $[1, 7, 7, 12]$  - 1 个解:

1.  $12 * (1 + 7 / 7) = 24$

378.  $[1, 7, 7, 13]$  - 无解

379.  $[1, 7, 8, 8]$  - 1 个解:

1.  $1 + 7 + 8 + 8 = 24$

380.  $[1, 7, 8, 9]$  - 15 个解:

1.  $8 + 9 + 1 * 7 = 24$
2.  $8 + 9 + 7 / 1 = 24$
3.  $7 + 9 + 1 * 8 = 24$
4.  $7 + 9 + 8 / 1 = 24$
5.  $9 + 1 * (7 + 8) = 24$
6.  $9 + (7 + 8) / 1 = 24$
7.  $8 * (1 + 9 - 7) = 24$
8.  $7 + 8 + 1 * 9 = 24$
9.  $7 + 8 + 9 / 1 = 24$
10.  $8 + 1 * (7 + 9) = 24$
11.  $8 + (7 + 9) / 1 = 24$
12.  $7 + 1 * (8 + 9) = 24$
13.  $7 + (8 + 9) / 1 = 24$
14.  $1 * (7 + 8 + 9) = 24$
15.  $(7 + 8 + 9) / 1 = 24$

381.  $[1, 7, 8, 10]$  - 7 个解:

1.  $8 * (10 - 1 * 7) = 24$
2.  $8 * (10 - 7 / 1) = 24$

3.  $8 * (1 * 10 - 7) = 24$

4.  $8 * (10 / 1 - 7) = 24$

5.  $1 * 8 * (10 - 7) = 24$

6.  $8 * (10 - 7) / 1 = 24$

7.  $7 + 8 + 10 - 1 = 24$

382.  $[1, 7, 8, 11]$  - 2 个解:

1.  $(1 + 7) * (11 - 8) = 24$
2.  $8 * (11 - (1 + 7)) = 24$

383.  $[1, 7, 8, 12]$  - 3 个解:

1.  $(1 - 7) * (8 - 12) = 24$
2.  $(7 - 1) * (12 - 8) = 24$
3.  $12 * (1 + 8 - 7) = 24$

384.  $[1, 7, 8, 13]$  - 无解

385.  $[1, 7, 9, 9]$  - 1 个解:

1.  $7 + 9 + 9 - 1 = 24$

386.  $[1, 7, 9, 10]$  - 2 个解:

1.  $(1 - 9) * (7 - 10) = 24$
2.  $(9 - 1) * (10 - 7) = 24$

387.  $[1, 7, 9, 11]$  - 1 个解:

1.  $(9 - 7) * (1 + 11) = 24$

388.  $[1, 7, 9, 12]$  - 7 个解:

1.  $(1 + 7) * (12 - 9) = 24$
2.  $12 * (9 - 1 * 7) = 24$
3.  $12 * (9 - 7 / 1) = 24$
4.  $12 * (1 * 9 - 7) = 24$
5.  $12 * (9 / 1 - 7) = 24$
6.  $1 * 12 * (9 - 7) = 24$
7.  $12 * (9 - 7) / 1 = 24$

389.  $[1, 7, 9, 13]$  - 4 个解:

1.  $(1 - 7) * (9 - 13) = 24$
2.  $(7 - 1) * (13 - 9) = 24$
3.  $(7 - 9) * (1 - 13) = 24$
4.  $(9 - 7) * (13 - 1) = 24$

390.  $[1, 7, 10, 10]$  - 无解

391.  $[1, 7, 10, 11]$  - 无解

392.  $[1, 7, 10, 12]$  - 2 个解:

1.  $12 * (10 - (1 + 7)) = 24$
2.  $10 / (1 - 7 / 12) = 24$

393.  $[1, 7, 10, 13] - 1$  个解:  
1.  $(1 + 7) * (13 - 10) = 24$

394.  $[1, 7, 11, 11] -$  无解

395.  $[1, 7, 11, 12] -$  无解

396.  $[1, 7, 11, 13] -$  无解

397.  $[1, 7, 12, 12] - 1$  个解:  
1.  $12 * 12 / (7 - 1) = 24$

398.  $[1, 7, 12, 13] - 1$  个解:  
1.  $12 * (1 + 13) / 7 = 24$

399.  $[1, 7, 13, 13] - 1$  个解:  
1.  $(13 * 13 - 1) / 7 = 24$

400.  $[1, 8, 8, 8] - 6$  个解:  
1.  $8 + 8 + 1 * 8 = 24$   
2.  $8 + 8 + 8 / 1 = 24$   
3.  $8 + 1 * (8 + 8) = 24$   
4.  $8 + (8 + 8) / 1 = 24$   
5.  $1 * (8 + 8 + 8) = 24$   
6.  $(8 + 8 + 8) / 1 = 24$

401.  $[1, 8, 8, 9] - 1$  个解:  
1.  $8 + 8 + 9 - 1 = 24$

402.  $[1, 8, 8, 10] - 1$  个解:  
1.  $8 * (1 + 10 - 8) = 24$

403.  $[1, 8, 8, 11] - 6$  个解:  
1.  $8 * (11 - 1 * 8) = 24$   
2.  $8 * (11 - 8 / 1) = 24$   
3.  $8 * (1 * 11 - 8) = 24$   
4.  $8 * (11 / 1 - 8) = 24$   
5.  $1 * 8 * (11 - 8) = 24$   
6.  $8 * (11 - 8) / 1 = 24$

404.  $[1, 8, 8, 12] - 3$  个解:  
1.  $8 * (12 - (1 + 8)) = 24$   
2.  $12 * (1 + 8 / 8) = 24$   
3.  $8 / (1 - 8 / 12) = 24$

405.  $[1, 8, 8, 13] -$  无解

406.  $[1, 8, 9, 9] -$  无解

407.  $[1, 8, 9, 10] -$  无解

408.  $[1, 8, 9, 11] - 4$  个解:  
1.  $(1 - 9) * (8 - 11) = 24$   
2.  $(9 - 1) * (11 - 8) = 24$   
3.  $8 * (1 + 11 - 9) = 24$   
4.  $9 / (11 / 8 - 1) = 24$

409.  $[1, 8, 9, 12] - 8$  个解:  
1.  $12 * (1 + 9 - 8) = 24$   
2.  $8 * (12 - 1 * 9) = 24$   
3.  $8 * (12 - 9 / 1) = 24$   
4.  $8 * (1 * 12 - 9) = 24$   
5.  $8 * (12 / 1 - 9) = 24$   
6.  $1 * 8 * (12 - 9) = 24$   
7.  $8 * (12 - 9) / 1 = 24$   
8.  $8 / (12 / 9 - 1) = 24$

410.  $[1, 8, 9, 13] - 1$  个解:  
1.  $8 * (13 - (1 + 9)) = 24$

411.  $[1, 8, 10, 10] -$  无解

412.  $[1, 8, 10, 11] - 1$  个解:  
1.  $(10 - 8) * (1 + 11) = 24$

413.  $[1, 8, 10, 12] - 7$  个解:  
1.  $12 * (10 - 1 * 8) = 24$   
2.  $12 * (10 - 8 / 1) = 24$   
3.  $12 * (1 * 10 - 8) = 24$   
4.  $12 * (10 / 1 - 8) = 24$   
5.  $1 * 12 * (10 - 8) = 24$   
6.  $12 * (10 - 8) / 1 = 24$   
7.  $8 * (1 + 12 - 10) = 24$

414.  $[1, 8, 10, 13] - 8$  个解:  
1.  $8 * (13 - 1 * 10) = 24$   
2.  $8 * (13 - 10 / 1) = 24$   
3.  $(8 - 10) * (1 - 13) = 24$   
4.  $(10 - 8) * (13 - 1) = 24$   
5.  $8 * (1 * 13 - 10) = 24$   
6.  $8 * (13 / 1 - 10) = 24$   
7.  $1 * 8 * (13 - 10) = 24$   
8.  $8 * (13 - 10) / 1 = 24$

415.  $[1, 8, 11, 11] -$  无解

416.  $[1, 8, 11, 12] - 1$  个解:

1.  $12 * (11 - (1 + 8)) = 24$

417.  $[1, 8, 11, 13] - 1$  个解:  
1.  $8 * (1 + 13 - 11) = 24$

418.  $[1, 8, 12, 12] - 1$  个解:  
1.  $12 / (12 / 8 - 1) = 24$

419.  $[1, 8, 12, 13] -$  无解

420.  $[1, 8, 13, 13] -$  无解

421.  $[1, 9, 9, 9] -$  无解

422.  $[1, 9, 9, 10] -$  无解

423.  $[1, 9, 9, 11] -$  无解

424.  $[1, 9, 9, 12] - 3$  个解:  
1.  $(1 - 9) * (9 - 12) = 24$   
2.  $(9 - 1) * (12 - 9) = 24$   
3.  $12 * (1 + 9 / 9) = 24$

425.  $[1, 9, 9, 13] -$  无解

426.  $[1, 9, 10, 10] -$  无解

427.  $[1, 9, 10, 11] -$  无解

428.  $[1, 9, 10, 12] - 1$  个解:  
1.  $12 * (1 + 10 - 9) = 24$

429.  $[1, 9, 10, 13] - 2$  个解:  
1.  $(1 - 9) * (10 - 13) = 24$   
2.  $(9 - 1) * (13 - 10) = 24$

430.  $[1, 9, 11, 11] - 2$  个解:  
1.  $(1 + 11) * (11 - 9) = 24$   
2.  $(11 - 9) * (1 + 11) = 24$

431.  $[1, 9, 11, 12] - 6$  个解:  
1.  $12 * (11 - 1 * 9) = 24$   
2.  $12 * (11 - 9 / 1) = 24$   
3.  $12 * (1 * 11 - 9) = 24$   
4.  $12 * (11 / 1 - 9) = 24$   
5.  $1 * 12 * (11 - 9) = 24$   
6.  $12 * (11 - 9) / 1 = 24$

432.  $[1, 9, 11, 13] - 2$  个解:



1.  $(9 - 11) * (1 - 13) = 24$
2.  $(11 - 9) * (13 - 1) = 24$

433.  $[1, 9, 12, 12] - 1$  个解:  
 1.  $12 * (12 - (1 + 9)) = 24$

434.  $[1, 9, 12, 13] -$  无解

435.  $[1, 9, 13, 13] -$  无解

436.  $[1, 10, 10, 10] -$  无解

437.  $[1, 10, 10, 11] -$  无解

438.  $[1, 10, 10, 12] - 1$  个解:  
 1.  $12 * (1 + 10 / 10) = 24$

439.  $[1, 10, 10, 13] -$  无解

440.  $[1, 10, 11, 11] -$  无解

441.  $[1, 10, 11, 12] - 2$  个解:  
 1.  $(1 + 11) * (12 - 10) = 24$   
 2.  $12 * (1 + 11 - 10) = 24$

442.  $[1, 10, 11, 13] -$  无解

443.  $[1, 10, 12, 12] - 6$  个解:  
 1.  $12 * (12 - 1 * 10) = 24$   
 2.  $12 * (12 - 10 / 1) = 24$   
 3.  $12 * (1 * 12 - 10) = 24$   
 4.  $12 * (12 / 1 - 10) = 24$   
 5.  $1 * 12 * (12 - 10) = 24$   
 6.  $12 * (12 - 10) / 1 = 24$

444.  $[1, 10, 12, 13] - 3$  个解:  
 1.  $12 * (13 - (1 + 10)) = 24$   
 2.  $(10 - 12) * (1 - 13) = 24$   
 3.  $(12 - 10) * (13 - 1) = 24$

445.  $[1, 10, 13, 13] -$  无解

446.  $[1, 11, 11, 11] -$  无解

447.  $[1, 11, 11, 12] - 1$  个解:  
 1.  $12 * (1 + 11 / 11) = 24$

448.  $[1, 11, 11, 13] - 2$  个解:  
 1.  $(1 + 11) * (13 - 11) = 24$

2.  $11 * (1 + 13 / 11) = 24$

449.  $[1, 11, 12, 12] - 1$  个解:  
 1.  $12 * (1 + 12 - 11) = 24$

450.  $[1, 11, 12, 13] - 6$  个解:  
 1.  $12 * (13 - 1 * 11) = 24$   
 2.  $12 * (13 - 11 / 1) = 24$   
 3.  $12 * (1 * 13 - 11) = 24$   
 4.  $12 * (13 / 1 - 11) = 24$   
 5.  $1 * 12 * (13 - 11) = 24$   
 6.  $12 * (13 - 11) / 1 = 24$

451.  $[1, 11, 13, 13] - 5$  个解:  
 1.  $(1 - 13) * (11 - 13) = 24$   
 2.  $(13 - 1) * (13 - 11) = 24$   
 3.  $(11 - 13) * (1 - 13) = 24$   
 4.  $(13 - 11) * (13 - 1) = 24$   
 5.  $13 * (1 + 11 / 13) = 24$

452.  $[1, 12, 12, 12] - 1$  个解:  
 1.  $12 * (1 + 12 / 12) = 24$

453.  $[1, 12, 12, 13] - 1$  个解:  
 1.  $12 * (1 + 13 - 12) = 24$

454.  $[1, 12, 13, 13] - 1$  个解:  
 1.  $12 * (1 + 13 / 13) = 24$

455.  $[1, 13, 13, 13] -$  无解

456.  $[2, 2, 2, 2] -$  无解

457.  $[2, 2, 2, 3] - 2$  个解:  
 1.  $2 * 3 * (2 + 2) = 24$   
 2.  $2 * 2 * 2 * 3 = 24$

458.  $[2, 2, 2, 4] - 4$  个解:  
 1.  $(2 + 2) * (2 + 4) = 24$   
 2.  $4 * (2 + 2 * 2) = 24$   
 3.  $4 * (2 + 2 + 2) = 24$   
 4.  $2 * 2 * (2 + 4) = 24$

459.  $[2, 2, 2, 5] - 1$  个解:  
 1.  $2 * (2 + 2 * 5) = 24$

460.  $[2, 2, 2, 6] -$  无解

461.  $[2, 2, 2, 7] - 1$  个解:

1.  $2 * (2 * 7 - 2) = 24$

462.  $[2, 2, 2, 8] - 5$  个解:  
 1.  $(2 + 2) * (8 - 2) = 24$   
 2.  $2 * (8 + 2 * 2) = 24$   
 3.  $8 * (2 + 2 / 2) = 24$   
 4.  $2 * 2 * (8 - 2) = 24$   
 5.  $2 * (2 + 2 + 8) = 24$

463.  $[2, 2, 2, 9] - 1$  个解:  
 1.  $2 + 2 * (2 + 9) = 24$

464.  $[2, 2, 2, 10] - 2$  个解:  
 1.  $2 * 2 + 2 * 10 = 24$   
 2.  $2 + 2 + 2 * 10 = 24$

465.  $[2, 2, 2, 11] - 2$  个解:  
 1.  $2 * (11 + 2 / 2) = 24$   
 2.  $2 * (2 + 11) - 2 = 24$

466.  $[2, 2, 2, 12] - 6$  个解:  
 1.  $12 * (2 + 2 - 2) = 24$   
 2.  $12 * (2 + 2) / 2 = 24$   
 3.  $12 * (2 * 2 - 2) = 24$   
 4.  $2 * (2 + 12 - 2) = 24$   
 5.  $2 + 2 * 12 - 2 = 24$   
 6.  $2 * 2 * 12 / 2 = 24$

467.  $[2, 2, 2, 13] - 3$  个解:  
 1.  $2 * (13 - 2 / 2) = 24$   
 2.  $2 - 2 * (2 - 13) = 24$   
 3.  $2 + 2 * (13 - 2) = 24$

468.  $[2, 2, 3, 3] - 3$  个解:  
 1.  $(2 + 2) * (3 + 3) = 24$   
 2.  $3 * (2 + 2 * 3) = 24$   
 3.  $2 * 2 * (3 + 3) = 24$

469.  $[2, 2, 3, 4] - 2$  个解:  
 1.  $3 * (4 + 2 * 2) = 24$   
 2.  $3 * (2 + 2 + 4) = 24$

470.  $[2, 2, 3, 5] - 1$  个解:  
 1.  $3 * (2 * 5 - 2) = 24$

471.  $[2, 2, 3, 6] - 4$  个解:  
 1.  $6 * (3 + 2 / 2) = 24$   
 2.  $6 * (2 * 3 - 2) = 24$   
 3.  $2 * (6 + 2 * 3) = 24$

$$4. 2 * 3 * (6 - 2) = 24$$

472.  $[2, 2, 3, 7] - 2$  个解:

$$1. 3 * (7 + 2 / 2) = 24$$

$$2. 2 * (2 + 3 + 7) = 24$$

473.  $[2, 2, 3, 8] - 5$  个解:

$$1. 8 * (2 + 3 - 2) = 24$$

$$2. 3 * (2 + 8 - 2) = 24$$

$$3. 2 + 2 * (3 + 8) = 24$$

$$4. 2 + 3 * 8 - 2 = 24$$

$$5. 2 * 3 * 8 / 2 = 24$$

474.  $[2, 2, 3, 9] - 5$  个解:

$$1. (2 + 2) * (9 - 3) = 24$$

$$2. 3 * (9 - 2 / 2) = 24$$

$$3. 2 * 3 + 2 * 9 = 24$$

$$4. 9 * (2 + 2 / 3) = 24$$

$$5. 2 * 2 * (9 - 3) = 24$$

475.  $[2, 2, 3, 10] - 1$  个解:

$$1. 2 * (3 + 10) - 2 = 24$$

476.  $[2, 2, 3, 11] - 1$  个解:

$$1. 2 * (3 + 11 - 2) = 24$$

477.  $[2, 2, 3, 12] - 9$  个解:

$$1. 12 + 3 * (2 + 2) = 24$$

$$2. 3 * (12 - (2 + 2)) = 24$$

$$3. 3 * (12 - 2 * 2) = 24$$

$$4. 12 * (3 - 2 / 2) = 24$$

$$5. 2 * 12 / (3 - 2) = 24$$

$$6. 2 * 12 * (3 - 2) = 24$$

$$7. 12 / (2 - 3 / 2) = 24$$

$$8. 12 + 2 * 2 * 3 = 24$$

$$9. 3 * (2 + 12 / 2) = 24$$

478.  $[2, 2, 3, 13] - 1$  个解:

$$1. 2 * (2 + 13 - 3) = 24$$

479.  $[2, 2, 4, 4] - 2$  个解:

$$1. 4 * (2 * 4 - 2) = 24$$

$$2. 2 * (4 + 2 * 4) = 24$$

480.  $[2, 2, 4, 5] - 6$  个解:

$$1. 4 + 5 * (2 + 2) = 24$$

$$2. 2 * 2 + 4 * 5 = 24$$

$$3. 4 * (5 + 2 / 2) = 24$$

$$4. 2 * 4 * (5 - 2) = 24$$

$$5. 4 + 2 * 2 * 5 = 24$$

$$6. 2 + 2 + 4 * 5 = 24$$

481.  $[2, 2, 4, 6] - 8$  个解:

$$1. (2 + 4) * (6 - 2) = 24$$

$$2. 6 * (2 + 4 - 2) = 24$$

$$3. 2 * 6 * (4 - 2) = 24$$

$$4. 6 * (2 + 4 / 2) = 24$$

$$5. 4 * (2 + 6 - 2) = 24$$

$$6. 2 * (2 + 4 + 6) = 24$$

$$7. 2 + 4 * 6 - 2 = 24$$

$$8. 2 * 4 * 6 / 2 = 24$$

482.  $[2, 2, 4, 7] - 6$  个解:

$$1. 4 * 7 - (2 + 2) = 24$$

$$2. 7 * (2 + 2) - 4 = 24$$

$$3. 4 * 7 - 2 * 2 = 24$$

$$4. 4 * (7 - 2 / 2) = 24$$

$$5. 2 * 2 * 7 - 4 = 24$$

$$6. 2 + 2 * (4 + 7) = 24$$

483.  $[2, 2, 4, 8] - 8$  个解:

$$1. 8 + 4 * (2 + 2) = 24$$

$$2. 8 * (4 - 2 / 2) = 24$$

$$3. 8 * (2 + 4) / 2 = 24$$

$$4. 2 * 4 + 2 * 8 = 24$$

$$5. 8 + 2 * 2 * 4 = 24$$

$$6. 4 + 2 * (2 + 8) = 24$$

$$7. 2 * (2 * 8 - 4) = 24$$

$$8. 4 * (2 + 8 / 2) = 24$$

484.  $[2, 2, 4, 9] - 2$  个解:

$$1. 2 + 4 + 2 * 9 = 24$$

$$2. 2 * (4 + 9) - 2 = 24$$

485.  $[2, 2, 4, 10] - 8$  个解:

$$1. (2 + 2) * (10 - 4) = 24$$

$$2. 4 * (10 - (2 + 2)) = 24$$

$$3. 4 * (10 - 2 * 2) = 24$$

$$4. (4 - 2) * (2 + 10) = 24$$

$$5. 2 * (10 + 4 / 2) = 24$$

$$6. 4 * (2 + 10) / 2 = 24$$

$$7. 2 * (4 + 10 - 2) = 24$$

$$8. 2 * 2 * (10 - 4) = 24$$

486.  $[2, 2, 4, 11] - 5$  个解:

$$1. 2 - 11 * (2 - 4) = 24$$

$$2. 2 + 11 * (4 - 2) = 24$$

$$3. 4 / 2 + 2 * 11 = 24$$

$$4. 4 + 2 * 11 - 2 = 24$$

$$5. 2 + 4 * 11 / 2 = 24$$

487.  $[2, 2, 4, 12] - 4$  个解:

$$1. 12 + 2 * (2 + 4) = 24$$

$$2. 2 * (2 + 12) - 4 = 24$$

$$3. 4 - 2 * (2 - 12) = 24$$

$$4. 4 + 2 * (12 - 2) = 24$$

488.  $[2, 2, 4, 13] - 4$  个解:

$$1. 13 * (4 - 2) - 2 = 24$$

$$2. 2 * 13 - 4 / 2 = 24$$

$$3. 2 + 2 * 13 - 4 = 24$$

$$4. 4 * 13 / 2 - 2 = 24$$

489.  $[2, 2, 5, 5] - 2$  个解:

$$1. 5 * 5 - 2 / 2 = 24$$

$$2. 2 * (2 + 5 + 5) = 24$$

490.  $[2, 2, 5, 6] - 3$  个解:

$$1. 6 * (5 - 2 / 2) = 24$$

$$2. (5 - 2) * (2 + 6) = 24$$

$$3. 2 + 2 * (5 + 6) = 24$$

491.  $[2, 2, 5, 7] - 1$  个解:

$$1. 2 * 5 + 2 * 7 = 24$$

492.  $[2, 2, 5, 8] - 1$  个解:

$$1. 2 * (5 + 8) - 2 = 24$$

493.  $[2, 2, 5, 9] - 1$  个解:

$$1. 2 * (5 + 9 - 2) = 24$$

494.  $[2, 2, 5, 10] - 5$  个解:

$$1. 10 + 2 * (2 + 5) = 24$$

$$2. (2 - 5) * (2 - 10) = 24$$

$$3. (5 - 2) * (10 - 2) = 24$$

$$4. 10 * (2 + 2 / 5) = 24$$

$$5. (5 * 10 - 2) / 2 = 24$$

495.  $[2, 2, 5, 11] - 2$  个解:

$$1. (2 + 2) * (11 - 5) = 24$$

$$2. 2 * 2 * (11 - 5) = 24$$

496.  $[2, 2, 5, 12] - 2$  个解:

$$1. 2 + 12 + 2 * 5 = 24$$

$$2. 12 / (5 / 2 - 2) = 24$$

497.  $[2, 2, 5, 13] -$  无解

498.  $[2, 2, 6, 6] - 2$  个解:

1.  $6 * (2 + 6) / 2 = 24$
2.  $2 * 6 + 2 * 6 = 24$

499.  $[2, 2, 6, 7] - 2$  个解:

1.  $6 + 2 * (2 + 7) = 24$
2.  $2 * (6 + 7) - 2 = 24$

500.  $[2, 2, 6, 8] - 7$  个解:

1.  $6 * (8 - (2 + 2)) = 24$
2.  $6 * (8 - 2 * 2) = 24$
3.  $8 + 2 * (2 + 6) = 24$
4.  $(2 - 6) * (2 - 8) = 24$
5.  $(6 - 2) * (8 - 2) = 24$
6.  $2 + 6 + 2 * 8 = 24$
7.  $2 * (6 + 8 - 2) = 24$

501.  $[2, 2, 6, 9] - 2$  个解:

1.  $2 * (9 + 6 / 2) = 24$
2.  $2 * (2 * 9 - 6) = 24$

502.  $[2, 2, 6, 10] - 3$  个解:

1.  $2 + 10 + 2 * 6 = 24$
2.  $6 * (10 - 2) / 2 = 24$
3.  $6 + 2 * 10 - 2 = 24$

503.  $[2, 2, 6, 11] - 2$  个解:

1.  $6 - 2 * (2 - 11) = 24$
2.  $6 + 2 * (11 - 2) = 24$

504.  $[2, 2, 6, 12] - 7$  个解:

1.  $(2 + 2) * (12 - 6) = 24$
2.  $12 * (6 - (2 + 2)) = 24$
3.  $12 * (6 - 2 * 2) = 24$
4.  $12 * (6 - 2) / 2 = 24$
5.  $6 * (12 / 2 - 2) = 24$
6.  $2 * (6 + 12 / 2) = 24$
7.  $2 * 2 * (12 - 6) = 24$

505.  $[2, 2, 6, 13] - 1$  个解:

1.  $2 * (2 + 13) - 6 = 24$

506.  $[2, 2, 7, 7] - 1$  个解:

1.  $2 * (7 + 7 - 2) = 24$

507.  $[2, 2, 7, 8] - 3$  个解:

1.  $8 * (7 - (2 + 2)) = 24$
2.  $8 * (7 - 2 * 2) = 24$

$$3. 2 + 8 + 2 * 7 = 24$$

508.  $[2, 2, 7, 9] -$  无解

509.  $[2, 2, 7, 10] - 1$  个解:

1.  $2 * (7 + 10 / 2) = 24$

510.  $[2, 2, 7, 11] -$  无解

511.  $[2, 2, 7, 12] - 1$  个解:

1.  $12 + 2 * 7 - 2 = 24$

512.  $[2, 2, 7, 13] - 4$  个解:

1.  $(2 + 2) * (13 - 7) = 24$
2.  $7 + 13 + 2 * 2 = 24$
3.  $2 + 2 + 7 + 13 = 24$
4.  $2 * 2 * (13 - 7) = 24$

513.  $[2, 2, 8, 8] - 4$  个解:

1.  $8 * (2 + 2) - 8 = 24$
2.  $8 * (8 - 2) / 2 = 24$
3.  $2 * (8 + 8 / 2) = 24$
4.  $2 * 2 * 8 - 8 = 24$

514.  $[2, 2, 8, 9] - 1$  个解:

1.  $8 + 2 * 9 - 2 = 24$

515.  $[2, 2, 8, 10] - 6$  个解:

1.  $10 + 2 * 8 - 2 = 24$
2.  $8 / 2 + 2 * 10 = 24$
3.  $8 - 2 * (2 - 10) = 24$
4.  $8 + 2 * (10 - 2) = 24$
5.  $2 * (2 * 10 - 8) = 24$
6.  $8 * (10 / 2 - 2) = 24$

516.  $[2, 2, 8, 11] -$  无解

517.  $[2, 2, 8, 12] - 7$  个解:

1.  $8 * 12 / (2 + 2) = 24$
2.  $8 * 12 / (2 * 2) = 24$
3.  $8 + 12 + 2 * 2 = 24$
4.  $12 - 2 * (2 - 8) = 24$
5.  $12 + 2 * (8 - 2) = 24$
6.  $12 * (8 / 2 - 2) = 24$
7.  $2 + 2 + 8 + 12 = 24$

518.  $[2, 2, 8, 13] -$  无解

519.  $[2, 2, 9, 9] -$  无解

520.  $[2, 2, 9, 10] - 2$  个解:

1.  $10 - 2 * (2 - 9) = 24$
2.  $10 + 2 * (9 - 2) = 24$

521.  $[2, 2, 9, 11] - 2$  个解:

1.  $9 + 11 + 2 * 2 = 24$
2.  $2 + 2 + 9 + 11 = 24$

522.  $[2, 2, 9, 12] - 3$  个解:

1.  $9 * (2 + 2) - 12 = 24$
2.  $2 * 9 + 12 / 2 = 24$
3.  $2 * 2 * 9 - 12 = 24$

523.  $[2, 2, 9, 13] -$  无解

524.  $[2, 2, 10, 10] - 2$  个解:

1.  $10 + 10 + 2 * 2 = 24$
2.  $2 + 2 + 10 + 10 = 24$

525.  $[2, 2, 10, 11] - 1$  个解:

1.  $2 * (2 * 11 - 10) = 24$

526.  $[2, 2, 10, 12] -$  无解

527.  $[2, 2, 10, 13] - 1$  个解:

1.  $10 + 13 + 2 / 2 = 24$

528.  $[2, 2, 11, 11] - 1$  个解:

1.  $11 * (2 + 2 / 11) = 24$

529.  $[2, 2, 11, 12] - 1$  个解:

1.  $11 + 12 + 2 / 2 = 24$

530.  $[2, 2, 11, 13] - 4$  个解:

1.  $13 + 2 * 11 / 2 = 24$
2.  $11 + 2 * 13 / 2 = 24$
3.  $2 + 11 + 13 - 2 = 24$
4.  $2 * (11 + 13) / 2 = 24$

531.  $[2, 2, 12, 12] - 4$  个解:

1.  $12 + 2 * 12 / 2 = 24$
2.  $2 * (2 * 12 - 12) = 24$
3.  $2 + 12 + 12 - 2 = 24$
4.  $2 * (12 + 12) / 2 = 24$

532.  $[2, 2, 12, 13] - 1$  个解:

1.  $12 + 13 - 2 / 2 = 24$

533.  $[2, 2, 13, 13] - 1$  个解:

1.  $13 * (2 - 2 / 13) = 24$

534.  $[2, 3, 3, 3] - 2$  个解:

1.  $3 * (2 + 3 + 3) = 24$

2.  $2 * (3 + 3 * 3) = 24$

535.  $[2, 3, 3, 4] -$  无解

536.  $[2, 3, 3, 5] - 2$  个解:

1.  $3 + 3 * (2 + 5) = 24$

2.  $2 * (3 * 5 - 3) = 24$

537.  $[2, 3, 3, 6] - 5$  个解:

1.  $2 * 3 + 3 * 6 = 24$

2.  $(3 + 3) * (6 - 2) = 24$

3.  $6 * (3 + 3 - 2) = 24$

4.  $6 + 2 * 3 * 3 = 24$

5.  $2 * (3 + 3 + 6) = 24$

538.  $[2, 3, 3, 7] - 3$  个解:

1.  $3 * (2 + 7) - 3 = 24$

2.  $3 * (3 + 7 - 2) = 24$

3.  $2 * 3 * (7 - 3) = 24$

539.  $[2, 3, 3, 8] - 5$  个解:

1.  $3 * 8 / (3 - 2) = 24$

2.  $3 * 8 * (3 - 2) = 24$

3.  $8 * (2 * 3 - 3) = 24$

4.  $8 * (3 + 3) / 2 = 24$

5.  $8 * (2 + 3 / 3) = 24$

540.  $[2, 3, 3, 9] - 5$  个解:

1.  $9 + 3 * (2 + 3) = 24$

2.  $3 * (2 + 9 - 3) = 24$

3.  $3 - 3 * (2 - 9) = 24$

4.  $3 + 3 * (9 - 2) = 24$

5.  $3 + 3 + 2 * 9 = 24$

541.  $[2, 3, 3, 10] - 2$  个解:

1.  $3 * 10 - 2 * 3 = 24$

2.  $3 * (3 + 10 / 2) = 24$

542.  $[2, 3, 3, 11] - 2$  个解:

1.  $2 * (11 + 3 / 3) = 24$

2.  $3 * (11 - 2) - 3 = 24$

543.  $[2, 3, 3, 12] - 5$  个解:

1.  $12 * (2 + 3 - 3) = 24$

2.  $12 + 2 * (3 + 3) = 24$

3.  $3 + 2 * 12 - 3 = 24$

4.  $2 * (3 + 12 - 3) = 24$

5.  $2 * 3 * 12 / 3 = 24$

544.  $[2, 3, 3, 13] - 4$  个解:

1.  $3 * (13 - (2 + 3)) = 24$

2.  $2 + 13 + 3 * 3 = 24$

3.  $2 * (13 - 3 / 3) = 24$

4.  $3 * (3 + 13) / 2 = 24$

545.  $[2, 3, 4, 4] - 3$  个解:

1.  $4 + 4 * (2 + 3) = 24$

2.  $3 * 4 * (4 - 2) = 24$

3.  $3 * 4 * 4 / 2 = 24$

546.  $[2, 3, 4, 5] - 2$  个解:

1.  $4 * (3 + 5 - 2) = 24$

2.  $2 * (3 + 4 + 5) = 24$

547.  $[2, 3, 4, 6] - 10$  个解:

1.  $4 * 6 / (3 - 2) = 24$

2.  $4 * 6 * (3 - 2) = 24$

3.  $6 + 3 * (2 + 4) = 24$

4.  $3 * (6 + 4 / 2) = 24$

5.  $3 * 4 + 2 * 6 = 24$

6.  $3 * (2 * 6 - 4) = 24$

7.  $4 * (3 + 6 / 2) = 24$

8.  $2 * 4 * (6 - 3) = 24$

9.  $2 + 4 + 3 * 6 = 24$

10.  $3 * (4 + 6 - 2) = 24$

548.  $[2, 3, 4, 7] - 3$  个解:

1.  $(2 + 4) * (7 - 3) = 24$

2.  $4 * (2 + 7 - 3) = 24$

3.  $4 + 2 * (3 + 7) = 24$

549.  $[2, 3, 4, 8] - 3$  个解:

1.  $8 * (2 + 4 - 3) = 24$

2.  $3 * (4 + 8 / 2) = 24$

3.  $2 * 3 * (8 - 4) = 24$

550.  $[2, 3, 4, 9] - 3$  个解:

1.  $(4 - 2) * (3 + 9) = 24$

2.  $4 * (3 + 9) / 2 = 24$

3.  $2 * 4 * 9 / 3 = 24$

551.  $[2, 3, 4, 10] - 5$  个解:

1.  $3 * 10 - (2 + 4) = 24$

2.  $3 * (10 - 4 / 2) = 24$

3.  $10 + 2 * (3 + 4) = 24$

4.  $2 + 10 + 3 * 4 = 24$

5.  $3 * (2 + 10 - 4) = 24$

552.  $[2, 3, 4, 11] - 3$  个解:

1.  $4 * (11 - (2 + 3)) = 24$

2.  $2 * (3 + 11) - 4 = 24$

3.  $2 * (4 + 11 - 3) = 24$

553.  $[2, 3, 4, 12] - 7$  个解:

1.  $12 * (2 * 3 - 4) = 24$

2.  $4 * (12 - 2 * 3) = 24$

3.  $12 * (2 + 4) / 3 = 24$

4.  $2 * 12 / (4 - 3) = 24$

5.  $2 * 12 * (4 - 3) = 24$

6.  $4 * (2 + 12 / 3) = 24$

7.  $3 * (4 + 12) / 2 = 24$

554.  $[2, 3, 4, 13] - 4$  个解:

1.  $3 + 13 + 2 * 4 = 24$

2.  $2 * (3 + 13 - 4) = 24$

3.  $4 - 2 * (3 - 13) = 24$

4.  $4 + 2 * (13 - 3) = 24$

555.  $[2, 3, 5, 5] - 4$  个解:

1.  $(5 - 2) * (3 + 5) = 24$

2.  $(3 + 5) * (5 - 2) = 24$

3.  $3 * (5 + 5 - 2) = 24$

4.  $2 + 5 * 5 - 3 = 24$

556.  $[2, 3, 5, 6] - 6$  个解:

1.  $5 * 6 - 2 * 3 = 24$

2.  $6 * (2 + 5 - 3) = 24$

3.  $6 * (3 + 5) / 2 = 24$

4.  $2 * 6 * (5 - 3) = 24$

5.  $2 * 3 * 5 - 6 = 24$

6.  $3 * (5 + 6 / 2) = 24$

557.  $[2, 3, 5, 7] - 4$  个解:

1.  $3 - 7 * (2 - 5) = 24$

2.  $3 + 7 * (5 - 2) = 24$

3.  $2 + 7 + 3 * 5 = 24$

4.  $5 + 3 * 7 - 2 = 24$

558.  $[2, 3, 5, 8] - 3$  个解:

1.  $8 + 2 * (3 + 5) = 24$

2.  $8 / (2 - 5 / 3) = 24$

3.  $3 + 5 + 2 * 8 = 24$

559.  $[2, 3, 5, 9] - 4$  个解:

1.  $9 * (5 - 2) - 3 = 24$
2.  $2 + 3 * 9 - 5 = 24$
3.  $2 * 3 * (9 - 5) = 24$
4.  $(3 + 5 * 9) / 2 = 24$

560.  $[2, 3, 5, 10] - 2$  个解:

1.  $(5 - 3) * (2 + 10) = 24$
2.  $2 * (5 + 10 - 3) = 24$

561.  $[2, 3, 5, 11] - 9$  个解:

1.  $(2 - 5) * (3 - 11) = 24$
2.  $(5 - 2) * (11 - 3) = 24$
3.  $3 + 11 + 2 * 5 = 24$
4.  $2 - 11 * (3 - 5) = 24$
5.  $2 + 11 * (5 - 3) = 24$
6.  $11 + 3 * 5 - 2 = 24$
7.  $3 * (2 + 11 - 5) = 24$
8.  $5 + 2 * 11 - 3 = 24$
9.  $3 * (5 + 11) / 2 = 24$

562.  $[2, 3, 5, 12] - 1$  个解:

1.  $12 / (3 - 5 / 2) = 24$

563.  $[2, 3, 5, 13] - 3$  个解:

1.  $5 + 13 + 2 * 3 = 24$
2.  $13 * (5 - 3) - 2 = 24$
3.  $3 + 2 * 13 - 5 = 24$

564.  $[2, 3, 6, 6] - 7$  个解:

1.  $6 * (2 + 3) - 6 = 24$
2.  $(2 + 6) * (6 - 3) = 24$
3.  $6 + 2 * (3 + 6) = 24$
4.  $(6 - 3) * (2 + 6) = 24$
5.  $2 * (3 * 6 - 6) = 24$
6.  $6 * (2 + 6 / 3) = 24$
7.  $2 * 6 * 6 / 3 = 24$

565.  $[2, 3, 6, 7] - 3$  个解:

1.  $6 / 2 + 3 * 7 = 24$
2.  $3 * (2 * 7 - 6) = 24$
3.  $3 + 6 * 7 / 2 = 24$

566.  $[2, 3, 6, 8] - 4$  个解:

1.  $8 + 3 * 6 - 2 = 24$
2.  $3 * (2 + 8) - 6 = 24$
3.  $6 - 3 * (2 - 8) = 24$
4.  $6 + 3 * (8 - 2) = 24$

567.  $[2, 3, 6, 9] - 9$  个解:

1.  $6 * (9 - (2 + 3)) = 24$
2.  $9 * (2 + 6) / 3 = 24$
3.  $(2 - 6) * (3 - 9) = 24$
4.  $(6 - 2) * (9 - 3) = 24$
5.  $3 + 9 + 2 * 6 = 24$
6.  $9 * (3 - 2 / 6) = 24$
7.  $3 * 9 - 6 / 2 = 24$
8.  $2 * (6 + 9 - 3) = 24$
9.  $6 * 9 / 2 - 3 = 24$

568.  $[2, 3, 6, 10] - 7$  个解:

1.  $6 * (10 - 2 * 3) = 24$
2.  $(3 - 6) * (2 - 10) = 24$
3.  $(6 - 3) * (10 - 2) = 24$
4.  $2 * (10 + 6 / 3) = 24$
5.  $6 * (2 + 10) / 3 = 24$
6.  $3 * (6 + 10) / 2 = 24$
7.  $2 * 3 * (10 - 6) = 24$

569.  $[2, 3, 6, 11] - 4$  个解:

1.  $3 * (11 - 6 / 2) = 24$
2.  $6 / 3 + 2 * 11 = 24$
3.  $6 * (11 - 3) / 2 = 24$
4.  $2 + 6 * 11 / 3 = 24$

570.  $[2, 3, 6, 12] - 12$  个解:

1.  $6 + 12 + 2 * 3 = 24$
2.  $12 - 3 * (2 - 6) = 24$
3.  $12 + 3 * (6 - 2) = 24$
4.  $3 * 12 - 2 * 6 = 24$
5.  $3 * 6 + 12 / 2 = 24$
6.  $2 * 3 * 6 - 12 = 24$
7.  $3 * (2 + 12 - 6) = 24$
8.  $3 * (12 - 2) - 6 = 24$
9.  $2 * (3 + 12) - 6 = 24$
10.  $6 - 2 * (3 - 12) = 24$
11.  $6 + 2 * (12 - 3) = 24$
12.  $6 + 3 * 12 / 2 = 24$

571.  $[2, 3, 6, 13] - 3$  个解:

1.  $2 * 13 - 6 / 3 = 24$
2.  $2 + 3 + 6 + 13 = 24$
3.  $6 * 13 / 3 - 2 = 24$

572.  $[2, 3, 7, 7] - 1$  个解:

1.  $3 + 7 + 2 * 7 = 24$

573.  $[2, 3, 7, 8] - 5$  个解:

1.  $8 * (2 + 7) / 3 = 24$
2.  $(3 - 7) * (2 - 8) = 24$
3.  $(7 - 3) * (8 - 2) = 24$
4.  $8 / (7 / 3 - 2) = 24$
5.  $2 * (7 + 8 - 3) = 24$

574.  $[2, 3, 7, 9] - 4$  个解:

1.  $9 - 3 * (2 - 7) = 24$
2.  $9 + 3 * (7 - 2) = 24$
3.  $2 * (3 * 7 - 9) = 24$
4.  $3 * (7 + 9) / 2 = 24$

575.  $[2, 3, 7, 10] - 2$  个解:

1.  $7 + 2 * 10 - 3 = 24$
2.  $(2 + 7 * 10) / 3 = 24$

576.  $[2, 3, 7, 11] - 4$  个解:

1.  $7 * (2 + 3) - 11 = 24$
2.  $7 + 11 + 2 * 3 = 24$
3.  $3 * 11 - (2 + 7) = 24$
4.  $2 * 3 * (11 - 7) = 24$

577.  $[2, 3, 7, 12] - 4$  个解:

1.  $12 * (7 - (2 + 3)) = 24$
2.  $12 / (7 / 2 - 3) = 24$
3.  $12 * (7 - 3) / 2 = 24$
4.  $2 + 3 + 7 + 12 = 24$

578.  $[2, 3, 7, 13] - 2$  个解:

1.  $13 + 2 * 7 - 3 = 24$
2.  $3 * (2 + 13 - 7) = 24$

579.  $[2, 3, 8, 8] - 3$  个解:

1.  $8 * (8 - (2 + 3)) = 24$
2.  $3 * (2 * 8 - 8) = 24$
3.  $3 * (8 + 8) / 2 = 24$

580.  $[2, 3, 8, 9] - 2$  个解:

1.  $8 * (9 - 2 * 3) = 24$
2.  $8 * (9 - 3) / 2 = 24$

581.  $[2, 3, 8, 10] - 2$  个解:

1.  $8 + 10 + 2 * 3 = 24$
2.  $2 + 3 * 10 - 8 = 24$

582.  $[2, 3, 8, 11] - 5$  个解:

1.  $11 + 2 * 8 - 3 = 24$
2.  $8 * (11 - 2) / 3 = 24$

3.  $8 - 2 * (3 - 11) = 24$
4.  $8 + 2 * (11 - 3) = 24$
5.  $2 + 3 + 8 + 11 = 24$

583.  $[2, 3, 8, 12] - 8$  个解:

1.  $12 * (8 - 2 * 3) = 24$
2.  $12 * (8 - 2) / 3 = 24$
3.  $3 * (12 - 8 / 2) = 24$
4.  $12 + 3 * 8 / 2 = 24$
5.  $2 * (3 * 8 - 12) = 24$
6.  $8 * (12 / 2 - 3) = 24$
7.  $2 * (8 + 12 / 3) = 24$
8.  $2 * 3 * (12 - 8) = 24$

584.  $[2, 3, 8, 13] - 1$  个解:

1.  $2 * (3 + 13) - 8 = 24$

585.  $[2, 3, 9, 9] - 4$  个解:

1.  $9 + 9 + 2 * 3 = 24$
2.  $3 * (2 + 9) - 9 = 24$
3.  $9 + 2 * 9 - 3 = 24$
4.  $2 * (9 + 9 / 3) = 24$

586.  $[2, 3, 9, 10] - 4$  个解:

1.  $3 * (2 * 9 - 10) = 24$
2.  $9 * (10 - 2) / 3 = 24$
3.  $9 + 3 * 10 / 2 = 24$
4.  $2 + 3 + 9 + 10 = 24$

587.  $[2, 3, 9, 11] -$  无解

588.  $[2, 3, 9, 12] - 2$  个解:

1.  $12 - 2 * (3 - 9) = 24$
2.  $12 + 2 * (9 - 3) = 24$

589.  $[2, 3, 9, 13] - 3$  个解:

1.  $3 * (13 - 2) - 9 = 24$
2.  $(9 + 3 * 13) / 2 = 24$
3.  $2 * 3 * (13 - 9) = 24$

590.  $[2, 3, 10, 10] - 2$  个解:

1.  $10 - 2 * (3 - 10) = 24$
2.  $10 + 2 * (10 - 3) = 24$

591.  $[2, 3, 10, 11] -$  无解

592.  $[2, 3, 10, 12] - 7$  个解:

1.  $10 * 12 / (2 + 3) = 24$
2.  $3 * 12 - (2 + 10) = 24$

$$3. 3 * (2 + 10) - 12 = 24$$

$$4. 2 * 10 + 12 / 3 = 24$$

$$5. 3 * (2 * 10 - 12) = 24$$

$$6. 12 * (10 / 2 - 3) = 24$$

$$7. 3 * 10 - 12 / 2 = 24$$

593.  $[2, 3, 10, 13] - 2$  个解:

1.  $3 * (13 - 10 / 2) = 24$
2.  $3 + 10 + 13 - 2 = 24$

594.  $[2, 3, 11, 11] - 1$  个解:

1.  $2 + 3 * 11 - 11 = 24$

595.  $[2, 3, 11, 12] - 1$  个解:

1.  $3 + 11 + 12 - 2 = 24$

596.  $[2, 3, 11, 13] - 10$  个解:

1.  $13 - 11 * (2 - 3) = 24$
2.  $13 - 11 / (2 - 3) = 24$
3.  $11 - 13 * (2 - 3) = 24$
4.  $11 - 13 / (2 - 3) = 24$
5.  $(3 - 2) * (11 + 13) = 24$
6.  $(11 + 13) / (3 - 2) = 24$
7.  $13 + 11 * (3 - 2) = 24$
8.  $13 + 11 / (3 - 2) = 24$
9.  $11 + 13 * (3 - 2) = 24$
10.  $11 + 13 / (3 - 2) = 24$

597.  $[2, 3, 12, 12] - 9$  个解:

1.  $12 - 12 * (2 - 3) = 24$
2.  $12 - 12 / (2 - 3) = 24$
3.  $(3 - 2) * (12 + 12) = 24$
4.  $(12 + 12) / (3 - 2) = 24$
5.  $12 + 12 * (3 - 2) = 24$
6.  $12 + 12 / (3 - 2) = 24$
7.  $12 * 12 / (2 * 3) = 24$
8.  $(12 + 3 * 12) / 2 = 24$
9.  $12 * (12 / 3 - 2) = 24$

598.  $[2, 3, 12, 13] - 1$  个解:

1.  $2 + 12 + 13 - 3 = 24$

599.  $[2, 3, 13, 13] - 1$  个解:

1.  $3 * 13 - (2 + 13) = 24$

600.  $[2, 4, 4, 4] - 6$  个解:

1.  $2 * 4 + 4 * 4 = 24$
2.  $4 * (4 + 4 / 2) = 24$
3.  $4 * (4 + 4 - 2) = 24$

$$4. 4 * 4 + 2 * 4 = 24$$

$$5. 2 * (4 * 4 - 4) = 24$$

$$6. 2 * (4 + 4 + 4) = 24$$

601.  $[2, 4, 4, 5] - 3$  个解:

1.  $(4 + 4) * (5 - 2) = 24$
2.  $4 * (2 + 5) - 4 = 24$
3.  $4 * (2 * 5 - 4) = 24$

602.  $[2, 4, 4, 6] - 4$  个解:

1.  $6 * (2 * 4 - 4) = 24$
2.  $6 * (4 + 4) / 2 = 24$
3.  $2 + 6 + 4 * 4 = 24$
4.  $4 + 2 * (4 + 6) = 24$

603.  $[2, 4, 4, 7] - 3$  个解:

1.  $4 - 4 * (2 - 7) = 24$
2.  $4 + 4 * (7 - 2) = 24$
3.  $2 * 4 * (7 - 4) = 24$

604.  $[2, 4, 4, 8] - 10$  个解:

1.  $(2 + 4) * (8 - 4) = 24$
2.  $(4 - 2) * (4 + 8) = 24$
3.  $4 * 8 - 2 * 4 = 24$
4.  $4 * (8 - 4 / 2) = 24$
5.  $8 + 2 * (4 + 4) = 24$
6.  $2 * 4 * 4 - 8 = 24$
7.  $8 * (2 + 4 / 4) = 24$
8.  $4 * (2 + 8 - 4) = 24$
9.  $4 + 4 + 2 * 8 = 24$
10.  $4 * (4 + 8) / 2 = 24$

605.  $[2, 4, 4, 9] - 1$  个解:

1.  $4 * (9 - 2) - 4 = 24$

606.  $[2, 4, 4, 10] - 5$  个解:

1.  $4 - 10 * (2 - 4) = 24$
2.  $4 + 10 * (4 - 2) = 24$
3.  $10 + 4 * 4 - 2 = 24$
4.  $2 * (4 + 10) - 4 = 24$
5.  $4 + 4 * 10 / 2 = 24$

607.  $[2, 4, 4, 11] - 2$  个解:

1.  $2 * (11 + 4 / 4) = 24$
2.  $(4 + 4 * 11) / 2 = 24$

608.  $[2, 4, 4, 12] - 8$  个解:

1.  $12 * (2 + 4 - 4) = 24$
2.  $4 * (12 - (2 + 4)) = 24$

3.  $4 * 12 / (4 - 2) = 24$
4.  $4 + 12 + 2 * 4 = 24$
5.  $12 * (4 - 4 / 2) = 24$
6.  $4 + 2 * 12 - 4 = 24$
7.  $2 * (4 + 12 - 4) = 24$
8.  $2 * 4 * 12 / 4 = 24$

609.  $[2, 4, 4, 13] - 2$  个解:

1.  $2 * (13 - 4 / 4) = 24$
2.  $(4 * 13 - 4) / 2 = 24$

610.  $[2, 4, 5, 5] - 1$  个解:

1.  $4 + 2 * (5 + 5) = 24$

611.  $[2, 4, 5, 6] - 6$  个解:

1.  $5 * 6 - (2 + 4) = 24$
2.  $5 * (2 + 4) - 6 = 24$
3.  $6 + 2 * (4 + 5) = 24$
4.  $6 + 4 * 5 - 2 = 24$
5.  $4 - 5 * (2 - 6) = 24$
6.  $4 + 5 * (6 - 2) = 24$

612.  $[2, 4, 5, 7] - 2$  个解:

1.  $(4 - 2) * (5 + 7) = 24$
2.  $4 * (5 + 7) / 2 = 24$

613.  $[2, 4, 5, 8] - 7$  个解:

1.  $8 * (2 * 4 - 5) = 24$
2.  $8 * (5 - 4 / 2) = 24$
3.  $8 * (2 + 5 - 4) = 24$
4.  $4 * 5 + 8 / 2 = 24$
5.  $2 * (4 * 5 - 8) = 24$
6.  $2 * 4 * (8 - 5) = 24$
7.  $4 + 5 * 8 / 2 = 24$

614.  $[2, 4, 5, 9] - 3$  个解:

1.  $(2 + 4) * (9 - 5) = 24$
2.  $4 * (2 + 9 - 5) = 24$
3.  $2 * (5 + 9) - 4 = 24$

615.  $[2, 4, 5, 10] - 1$  个解:

1.  $4 + 10 + 2 * 5 = 24$

616.  $[2, 4, 5, 11] - 2$  个解:

1.  $5 + 11 + 2 * 4 = 24$
2.  $2 * (5 + 11 - 4) = 24$

617.  $[2, 4, 5, 12] - 6$  个解:

1.  $(2 - 5) * (4 - 12) = 24$

$$2. 12 - 4 * (2 - 5) = 24$$

$$3. (5 - 2) * (12 - 4) = 24$$

$$4. 12 + 4 * (5 - 2) = 24$$

$$5. 2 * 12 / (5 - 4) = 24$$

$$6. 2 * 12 * (5 - 4) = 24$$

618.  $[2, 4, 5, 13] - 3$  个解:

1.  $4 * (13 - (2 + 5)) = 24$
2.  $2 * (4 + 13 - 5) = 24$
3.  $2 + 4 + 5 + 13 = 24$

619.  $[2, 4, 6, 6] - 6$  个解:

1.  $(4 - 2) * (6 + 6) = 24$
2.  $6 * (6 - 4 / 2) = 24$
3.  $6 * (2 + 6 - 4) = 24$
4.  $4 * (2 * 6 - 6) = 24$
5.  $2 * 6 * (6 - 4) = 24$
6.  $4 * (6 + 6) / 2 = 24$

620.  $[2, 4, 6, 7] - 5$  个解:

1.  $(2 + 6) * (7 - 4) = 24$
2.  $7 * (6 - 2) - 4 = 24$
3.  $4 + 6 + 2 * 7 = 24$
4.  $2 + 4 * 7 - 6 = 24$
5.  $6 / (2 - 7 / 4) = 24$

621.  $[2, 4, 6, 8] - 9$  个解:

1.  $6 * 8 / (4 - 2) = 24$
2.  $4 * 8 - (2 + 6) = 24$
3.  $4 * (2 + 6) - 8 = 24$
4.  $8 - 4 * (2 - 6) = 24$
5.  $8 + 4 * (6 - 2) = 24$
6.  $4 + 8 + 2 * 6 = 24$
7.  $6 * (2 + 8 / 4) = 24$
8.  $2 * (6 + 8) - 4 = 24$
9.  $2 * 6 * 8 / 4 = 24$

622.  $[2, 4, 6, 9] - 8$  个解:

1.  $6 - 9 * (2 - 4) = 24$
2.  $6 + 9 * (4 - 2) = 24$
3.  $4 * 9 - 2 * 6 = 24$
4.  $4 * (9 - 6 / 2) = 24$
5.  $9 * (2 + 4 / 6) = 24$
6.  $6 + 4 * 9 / 2 = 24$
7.  $6 / (9 / 4 - 2) = 24$
8.  $2 * 4 * (9 - 6) = 24$

623.  $[2, 4, 6, 10] - 8$  个解:

1.  $(2 + 4) * (10 - 6) = 24$

$$2. 6 * (10 - (2 + 4)) = 24$$

$$3. 6 + 10 + 2 * 4 = 24$$

$$4. (2 - 6) * (4 - 10) = 24$$

$$5. (6 - 2) * (10 - 4) = 24$$

$$6. (6 - 4) * (2 + 10) = 24$$

$$7. 4 * (2 + 10 - 6) = 24$$

$$8. 2 * (6 + 10 - 4) = 24$$

624.  $[2, 4, 6, 11] - 5$  个解:

1.  $2 - 11 * (4 - 6) = 24$
2.  $2 + 11 * (6 - 4) = 24$
3.  $6 + 2 * 11 - 4 = 24$
4.  $2 * (4 + 11) - 6 = 24$
5.  $4 / (2 - 11 / 6) = 24$

625.  $[2, 4, 6, 12] - 11$  个解:

1.  $6 * (2 + 4) - 12 = 24$
2.  $12 - 6 * (2 - 4) = 24$
3.  $12 + 6 * (4 - 2) = 24$
4.  $12 * (2 * 4 - 6) = 24$
5.  $6 * (12 - 2 * 4) = 24$
6.  $12 * (2 + 6) / 4 = 24$
7.  $12 + 4 * 6 / 2 = 24$
8.  $2 * (4 * 6 - 12) = 24$
9.  $12 / (2 - 6 / 4) = 24$
10.  $6 * (12 - 4) / 2 = 24$
11.  $2 + 4 + 6 + 12 = 24$

626.  $[2, 4, 6, 13] - 5$  个解:

1.  $13 * (6 - 4) - 2 = 24$
2.  $4 + 2 * 13 - 6 = 24$
3.  $6 - 2 * (4 - 13) = 24$
4.  $6 + 2 * (13 - 4) = 24$
5.  $4 / (13 / 6 - 2) = 24$

627.  $[2, 4, 7, 7] - 1$  个解:

1.  $2 * (7 + 7) - 4 = 24$

628.  $[2, 4, 7, 8] - 3$  个解:

1.  $4 * (2 * 7 - 8) = 24$
2.  $4 * 7 - 8 / 2 = 24$
3.  $7 * 8 / 2 - 4 = 24$

629.  $[2, 4, 7, 9] - 2$  个解:

1.  $7 + 9 + 2 * 4 = 24$
2.  $2 * (7 + 9 - 4) = 24$

630.  $[2, 4, 7, 10] - 6$  个解:

1.  $10 - 7 * (2 - 4) = 24$

2.  $10 + 7 * (4 - 2) = 24$
3.  $(4 - 7) * (2 - 10) = 24$
4.  $(7 - 4) * (10 - 2) = 24$
5.  $10 + 4 * 7 / 2 = 24$
6.  $2 * 4 * (10 - 7) = 24$

631.  $[2, 4, 7, 11] - 3$  个解:
1.  $(2 + 4) * (11 - 7) = 24$
  2.  $4 * (2 + 11 - 7) = 24$
  3.  $2 + 4 + 7 + 11 = 24$

632.  $[2, 4, 7, 12] - 2$  个解:
1.  $4 * (2 + 7) - 12 = 24$
  2.  $12 / (4 - 7 / 2) = 24$

633.  $[2, 4, 7, 13] -$  无解

634.  $[2, 4, 8, 8] - 9$  个解:
1.  $8 - 8 * (2 - 4) = 24$
  2.  $8 + 8 * (4 - 2) = 24$
  3.  $8 + 8 + 2 * 4 = 24$
  4.  $(2 - 8) * (4 - 8) = 24$
  5.  $(8 - 2) * (8 - 4) = 24$
  6.  $(4 - 8) * (2 - 8) = 24$
  7.  $(8 - 4) * (8 - 2) = 24$
  8.  $8 + 4 * 8 / 2 = 24$
  9.  $2 * (8 + 8 - 4) = 24$

635.  $[2, 4, 8, 9] - 1$  个解:
1.  $8 * (9 - (2 + 4)) = 24$

636.  $[2, 4, 8, 10] - 11$  个解:
1.  $4 * 10 - 2 * 8 = 24$
  2.  $4 * (2 * 8 - 10) = 24$
  3.  $4 * (10 - 8 / 2) = 24$
  4.  $2 + 4 * 8 - 10 = 24$
  5.  $2 * (10 + 8 / 4) = 24$
  6.  $8 * (2 + 10) / 4 = 24$
  7.  $4 * (10 - 2) - 8 = 24$
  8.  $8 + 2 * 10 - 4 = 24$
  9.  $8 * (10 - 4) / 2 = 24$
  10.  $(8 + 4 * 10) / 2 = 24$
  11.  $2 + 4 + 8 + 10 = 24$

637.  $[2, 4, 8, 11] - 4$  个解:
1.  $8 * (11 - 2 * 4) = 24$
  2.  $8 / 4 + 2 * 11 = 24$
  3.  $2 * 4 * (11 - 8) = 24$
  4.  $2 + 8 * 11 / 4 = 24$

638.  $[2, 4, 8, 12] - 8$  个解:
1.  $(2 + 4) * (12 - 8) = 24$
  2.  $12 * (8 - (2 + 4)) = 24$
  3.  $12 + 2 * 8 - 4 = 24$
  4.  $12 * (8 - 4) / 2 = 24$
  5.  $4 * (2 + 12 - 8) = 24$
  6.  $2 * (4 + 12) - 8 = 24$
  7.  $8 - 2 * (4 - 12) = 24$
  8.  $8 + 2 * (12 - 4) = 24$

639.  $[2, 4, 8, 13] - 2$  个解:
1.  $2 * 13 - 8 / 4 = 24$
  2.  $8 * 13 / 4 - 2 = 24$

640.  $[2, 4, 9, 9] - 1$  个解:
1.  $2 + 4 + 9 + 9 = 24$

641.  $[2, 4, 9, 10] - 2$  个解:
1.  $10 + 2 * 9 - 4 = 24$
  2.  $4 * 9 - (2 + 10) = 24$

642.  $[2, 4, 9, 11] -$  无解

643.  $[2, 4, 9, 12] - 5$  个解:
1.  $4 * (2 * 9 - 12) = 24$
  2.  $12 / (9 / 2 - 4) = 24$
  3.  $(12 + 4 * 9) / 2 = 24$
  4.  $2 * (9 + 12 / 4) = 24$
  5.  $2 * 4 * (12 - 9) = 24$

644.  $[2, 4, 9, 13] - 4$  个解:
1.  $(2 + 4) * (13 - 9) = 24$
  2.  $9 + 13 + 4 / 2 = 24$
  3.  $4 * (2 + 13 - 9) = 24$
  4.  $4 + 9 + 13 - 2 = 24$

645.  $[2, 4, 10, 10] - 1$  个解:
1.  $10 * (2 + 4 / 10) = 24$

646.  $[2, 4, 10, 11] - 4$  个解:
1.  $4 * 11 - 2 * 10 = 24$
  2.  $4 * (11 - 10 / 2) = 24$
  3.  $10 - 2 * (4 - 11) = 24$
  4.  $10 + 2 * (11 - 4) = 24$

647.  $[2, 4, 10, 12] - 7$  个解:
1.  $12 * (10 - 2 * 4) = 24$
  2.  $10 + 12 + 4 / 2 = 24$

3.  $12 * (10 - 2) / 4 = 24$
4.  $12 - 2 * (4 - 10) = 24$
5.  $12 + 2 * (10 - 4) = 24$
6.  $12 / (10 / 4 - 2) = 24$
7.  $4 + 10 + 12 - 2 = 24$

648.  $[2, 4, 10, 13] - 2$  个解:
1.  $2 * (4 + 13) - 10 = 24$
  2.  $2 * 4 * (13 - 10) = 24$

649.  $[2, 4, 11, 11] - 2$  个解:
1.  $11 + 11 + 4 / 2 = 24$
  2.  $4 + 11 + 11 - 2 = 24$

650.  $[2, 4, 11, 12] - 1$  个解:
1.  $4 * (11 - 2) - 12 = 24$

651.  $[2, 4, 11, 13] -$  无解

652.  $[2, 4, 12, 12] - 4$  个解:
1.  $12 * 12 / (2 + 4) = 24$
  2.  $4 * 12 - 2 * 12 = 24$
  3.  $12 * (12 / 2 - 4) = 24$
  4.  $4 * (12 - 12 / 2) = 24$

653.  $[2, 4, 12, 13] -$  无解

654.  $[2, 4, 13, 13] - 2$  个解:
1.  $13 + 13 - 4 / 2 = 24$
  2.  $2 + 13 + 13 - 4 = 24$

655.  $[2, 5, 5, 5] -$  无解

656.  $[2, 5, 5, 6] -$  无解

657.  $[2, 5, 5, 7] - 1$  个解:
1.  $5 + 5 + 2 * 7 = 24$

658.  $[2, 5, 5, 8] - 1$  个解:
1.  $8 * (2 + 5 / 5) = 24$

659.  $[2, 5, 5, 9] - 3$  个解:
1.  $9 - 5 * (2 - 5) = 24$
  2.  $9 + 5 * (5 - 2) = 24$
  3.  $5 + 9 + 2 * 5 = 24$

660.  $[2, 5, 5, 10] - 1$  个解:
1.  $5 * (5 - 2 / 10) = 24$



661.  $[2, 5, 5, 11] - 2$  个解:

1.  $5 * (2 + 5) - 11 = 24$
2.  $2 * (11 + 5 / 5) = 24$

662.  $[2, 5, 5, 12] - 5$  个解:

1.  $12 * (2 + 5 - 5) = 24$
2.  $5 + 2 * 12 - 5 = 24$
3.  $2 * (5 + 12 - 5) = 24$
4.  $2 * 5 * 12 / 5 = 24$
5.  $2 + 5 + 5 + 12 = 24$

663.  $[2, 5, 5, 13] - 4$  个解:

1.  $(2 - 5) * (5 - 13) = 24$
2.  $(5 - 2) * (13 - 5) = 24$
3.  $2 * (5 * 5 - 13) = 24$
4.  $2 * (13 - 5 / 5) = 24$

664.  $[2, 5, 6, 6] - 3$  个解:

1.  $6 - 6 * (2 - 5) = 24$
2.  $6 + 6 * (5 - 2) = 24$
3.  $6 * (2 * 5 - 6) = 24$

665.  $[2, 5, 6, 7] - 3$  个解:

1.  $5 + 7 + 2 * 6 = 24$
2.  $6 * (2 + 7 - 5) = 24$
3.  $2 * 6 * (7 - 5) = 24$

666.  $[2, 5, 6, 8] - 5$  个解:

1.  $6 + 8 + 2 * 5 = 24$
2.  $(2 + 6) * (8 - 5) = 24$
3.  $8 * (2 + 6 - 5) = 24$
4.  $2 + 5 * 6 - 8 = 24$
5.  $5 * (8 - 2) - 6 = 24$

667.  $[2, 5, 6, 9] - 1$  个解:

1.  $9 + 5 * 6 / 2 = 24$

668.  $[2, 5, 6, 10] - 4$  个解:

1.  $10 * (5 - 2) - 6 = 24$
2.  $2 * (5 + 10) - 6 = 24$
3.  $6 * (2 + 10 / 5) = 24$
4.  $2 * 6 * 10 / 5 = 24$

669.  $[2, 5, 6, 11] - 5$  个解:

1.  $6 * (11 - (2 + 5)) = 24$
2.  $(2 - 6) * (5 - 11) = 24$
3.  $(6 - 2) * (11 - 5) = 24$
4.  $2 + 5 + 6 + 11 = 24$
5.  $2 * (6 + 11 - 5) = 24$

670.  $[2, 5, 6, 12] - 6$  个解:

1.  $6 * 12 / (5 - 2) = 24$
2.  $12 * (5 - 6 / 2) = 24$
3.  $2 * 12 / (6 - 5) = 24$
4.  $2 * 12 * (6 - 5) = 24$
5.  $5 * 6 - 12 / 2 = 24$
6.  $5 * 12 / 2 - 6 = 24$

671.  $[2, 5, 6, 13] - 2$  个解:

1.  $2 * (5 + 13 - 6) = 24$
2.  $6 * (13 - 5) / 2 = 24$

672.  $[2, 5, 7, 7] - 1$  个解:

1.  $7 + 7 + 2 * 5 = 24$

673.  $[2, 5, 7, 8] - 1$  个解:

1.  $8 * (2 * 5 - 7) = 24$

674.  $[2, 5, 7, 9] - 1$  个解:

1.  $5 * 7 - (2 + 9) = 24$

675.  $[2, 5, 7, 10] - 3$  个解:

1.  $(7 - 5) * (2 + 10) = 24$
2.  $2 + 5 + 7 + 10 = 24$
3.  $2 * (7 + 10 - 5) = 24$

676.  $[2, 5, 7, 11] - 4$  个解:

1.  $2 - 11 * (5 - 7) = 24$
2.  $2 + 11 * (7 - 5) = 24$
3.  $7 + 2 * 11 - 5 = 24$
4.  $(5 * 11 - 7) / 2 = 24$

677.  $[2, 5, 7, 12] -$  无解

678.  $[2, 5, 7, 13] - 4$  个解:

1.  $13 * (7 - 5) - 2 = 24$
2.  $2 + 5 * 7 - 13 = 24$
3.  $(13 + 5 * 7) / 2 = 24$
4.  $5 + 2 * 13 - 7 = 24$

679.  $[2, 5, 8, 8] - 2$  个解:

1.  $5 * 8 - 2 * 8 = 24$
2.  $(8 + 5 * 8) / 2 = 24$

680.  $[2, 5, 8, 9] - 5$  个解:

1.  $8 * 9 / (5 - 2) = 24$
2.  $(2 - 8) * (5 - 9) = 24$
3.  $(8 - 2) * (9 - 5) = 24$

$$4. 2 + 5 + 8 + 9 = 24$$

$$5. 2 * (8 + 9 - 5) = 24$$

681.  $[2, 5, 8, 10] - 3$  个解:

1.  $8 * (10 - (2 + 5)) = 24$
2.  $(5 - 8) * (2 - 10) = 24$
3.  $(8 - 5) * (10 - 2) = 24$

682.  $[2, 5, 8, 11] - 2$  个解:

1.  $2 * (5 + 11) - 8 = 24$
2.  $8 * (11 - 5) / 2 = 24$

683.  $[2, 5, 8, 12] - 2$  个解:

1.  $12 * (2 * 5 - 8) = 24$
2.  $12 * (2 + 8) / 5 = 24$

684.  $[2, 5, 8, 13] - 6$  个解:

1.  $8 * (13 - 2 * 5) = 24$
2.  $13 + 2 * 8 - 5 = 24$
3.  $8 * (2 + 13) / 5 = 24$
4.  $8 - 2 * (5 - 13) = 24$
5.  $8 + 2 * (13 - 5) = 24$
6.  $5 + 8 + 13 - 2 = 24$

685.  $[2, 5, 9, 9] -$  无解

686.  $[2, 5, 9, 10] - 1$  个解:

1.  $9 + 2 * 10 - 5 = 24$

687.  $[2, 5, 9, 11] - 3$  个解:

1.  $11 * (5 - 2) - 9 = 24$
2.  $5 * (9 - 2) - 11 = 24$
3.  $11 + 2 * 9 - 5 = 24$

688.  $[2, 5, 9, 12] - 4$  个解:

1.  $12 * (9 - (2 + 5)) = 24$
2.  $12 / (5 - 9 / 2) = 24$
3.  $12 * (9 - 5) / 2 = 24$
4.  $5 + 9 + 12 - 2 = 24$

689.  $[2, 5, 9, 13] -$  无解

690.  $[2, 5, 10, 10] - 2$  个解:

1.  $10 * (2 + 10) / 5 = 24$
2.  $2 * (10 + 10 / 5) = 24$

691.  $[2, 5, 10, 11] - 3$  个解:

1.  $10 / 5 + 2 * 11 = 24$
2.  $5 + 10 + 11 - 2 = 24$

$$3. 2 + 10 * 11 / 5 = 24$$

692. [2, 5, 10, 12] - 3 个解:

1.  $2 * (5 + 12) - 10 = 24$
2.  $10 - 2 * (5 - 12) = 24$
3.  $10 + 2 * (12 - 5) = 24$

693. [2, 5, 10, 13] - 3 个解:

1.  $5 * 10 - 2 * 13 = 24$
2.  $2 * 13 - 10 / 5 = 24$
3.  $10 * 13 / 5 - 2 = 24$

694. [2, 5, 11, 11] - 无解

695. [2, 5, 11, 12] - 3 个解:

1.  $12 / (11 / 2 - 5) = 24$
2.  $12 - 2 * (5 - 11) = 24$
3.  $12 + 2 * (11 - 5) = 24$

696. [2, 5, 11, 13] - 无解

697. [2, 5, 12, 12] - 4 个解:

1.  $12 * (5 - 2) - 12 = 24$
2.  $12 * (12 - 2 * 5) = 24$
3.  $12 * (12 - 2) / 5 = 24$
4.  $(5 * 12 - 12) / 2 = 24$

698. [2, 5, 12, 13] - 2 个解:

1.  $5 + 13 + 12 / 2 = 24$
2.  $2 * (5 + 13) - 12 = 24$

699. [2, 5, 13, 13] - 无解

700. [2, 6, 6, 6] - 3 个解:

1.  $6 * 6 - 2 * 6 = 24$
2.  $6 + 6 + 2 * 6 = 24$
3.  $6 + 6 * 6 / 2 = 24$

701. [2, 6, 6, 7] - 3 个解:

1.  $6 * (7 - 6 / 2) = 24$
2.  $6 * (7 - 2) - 6 = 24$
3.  $(6 + 6 * 7) / 2 = 24$

702. [2, 6, 6, 8] - 5 个解:

1.  $6 * (2 * 6 - 8) = 24$
2.  $8 * (6 - 6 / 2) = 24$
3.  $8 * (2 + 6 / 6) = 24$
4.  $6 * (2 + 8 - 6) = 24$
5.  $2 * 6 * (8 - 6) = 24$

703. [2, 6, 6, 9] - 3 个解:

1.  $(2 + 6) * (9 - 6) = 24$
2.  $2 * (6 + 9) - 6 = 24$
3.  $(6 * 9 - 6) / 2 = 24$

704. [2, 6, 6, 10] - 3 个解:

1.  $6 * 6 - (2 + 10) = 24$
2.  $6 * 10 / 2 - 6 = 24$
3.  $2 + 6 + 6 + 10 = 24$

705. [2, 6, 6, 11] - 1 个解:

1.  $2 * (11 + 6 / 6) = 24$

706. [2, 6, 6, 12] - 9 个解:

1.  $12 * (2 + 6 - 6) = 24$
2.  $6 * (12 - (2 + 6)) = 24$
3.  $(2 - 6) * (6 - 12) = 24$
4.  $(6 - 2) * (12 - 6) = 24$
5.  $(12 + 6 * 6) / 2 = 24$
6.  $6 + 2 * 12 - 6 = 24$
7.  $2 * (6 + 12 - 6) = 24$
8.  $2 * 6 * 12 / 6 = 24$
9.  $6 * (2 + 12 / 6) = 24$

707. [2, 6, 6, 13] - 1 个解:

1.  $2 * (13 - 6 / 6) = 24$

708. [2, 6, 7, 7] - 无解

709. [2, 6, 7, 8] - 2 个解:

1.  $8 * (2 + 7 - 6) = 24$
2.  $2 * (7 + 8) - 6 = 24$

710. [2, 6, 7, 9] - 4 个解:

1.  $6 * 7 - 2 * 9 = 24$
2.  $6 * (2 + 9 - 7) = 24$
3.  $2 + 6 + 7 + 9 = 24$
4.  $2 * 6 * (9 - 7) = 24$

711. [2, 6, 7, 10] - 2 个解:

1.  $(2 + 6) * (10 - 7) = 24$
2.  $6 * (2 * 7 - 10) = 24$

712. [2, 6, 7, 11] - 1 个解:

1.  $2 * (7 + 11 - 6) = 24$

713. [2, 6, 7, 12] - 2 个解:

1.  $2 * 12 / (7 - 6) = 24$

$$2. 2 * 12 * (7 - 6) = 24$$

714. [2, 6, 7, 13] - 5 个解:

1.  $(2 - 6) * (7 - 13) = 24$
2.  $(6 - 2) * (13 - 7) = 24$
3.  $6 * (13 - (2 + 7)) = 24$
4.  $2 * (6 + 13 - 7) = 24$
5.  $6 + 7 + 13 - 2 = 24$

715. [2, 6, 8, 8] - 3 个解:

1.  $8 * (6 - 2) - 8 = 24$
2.  $6 * (8 - 8 / 2) = 24$
3.  $2 + 6 + 8 + 8 = 24$

716. [2, 6, 8, 9] - 2 个解:

1.  $8 * (2 * 6 - 9) = 24$
2.  $2 * 8 * 9 / 6 = 24$

717. [2, 6, 8, 10] - 8 个解:

1.  $(2 - 8) * (6 - 10) = 24$
2.  $(8 - 2) * (10 - 6) = 24$
3.  $(8 - 6) * (2 + 10) = 24$
4.  $6 * (2 + 10 - 8) = 24$
5.  $2 * (6 + 10) - 8 = 24$
6.  $8 / (2 - 10 / 6) = 24$
7.  $2 * (8 + 10 - 6) = 24$
8.  $2 * 6 * (10 - 8) = 24$

718. [2, 6, 8, 11] - 5 个解:

1.  $(2 + 6) * (11 - 8) = 24$
2.  $8 * (11 - (2 + 6)) = 24$
3.  $2 - 11 * (6 - 8) = 24$
4.  $2 + 11 * (8 - 6) = 24$
5.  $8 + 2 * 11 - 6 = 24$

719. [2, 6, 8, 12] - 7 个解:

1.  $8 * 12 / (6 - 2) = 24$
2.  $6 * (8 - 2) - 12 = 24$
3.  $6 * (2 * 8 - 12) = 24$
4.  $12 * (6 - 8 / 2) = 24$
5.  $6 * 8 - 2 * 12 = 24$
6.  $8 * (12 - 6) / 2 = 24$
7.  $6 + 8 + 12 - 2 = 24$

720. [2, 6, 8, 13] - 3 个解:

1.  $8 + 13 + 6 / 2 = 24$
2.  $13 * (8 - 6) - 2 = 24$
3.  $6 + 2 * 13 - 8 = 24$

721.  $[2, 6, 9, 9] - 2$  个解:

1.  $9 * (2 + 6 / 9) = 24$
2.  $2 * (9 + 9 - 6) = 24$

722.  $[2, 6, 9, 10] - 3$  个解:

1.  $(6 - 9) * (2 - 10) = 24$
2.  $(9 - 6) * (10 - 2) = 24$
3.  $6 * (9 - 10 / 2) = 24$

723.  $[2, 6, 9, 11] - 4$  个解:

1.  $6 * (2 + 11 - 9) = 24$
2.  $6 * 11 / 2 - 9 = 24$
3.  $6 + 9 + 11 - 2 = 24$
4.  $2 * 6 * (11 - 9) = 24$

724.  $[2, 6, 9, 12] - 5$  个解:

1.  $(2 + 6) * (12 - 9) = 24$
2.  $9 * (6 - 2) - 12 = 24$
3.  $9 + 12 + 6 / 2 = 24$
4.  $12 + 2 * 9 - 6 = 24$
5.  $12 / (2 - 9 / 6) = 24$

725.  $[2, 6, 9, 13] -$  无解

726.  $[2, 6, 10, 10] - 2$  个解:

1.  $10 + 2 * 10 - 6 = 24$
2.  $6 + 10 + 10 - 2 = 24$

727.  $[2, 6, 10, 11] - 2$  个解:

1.  $10 + 11 + 6 / 2 = 24$
2.  $2 * (6 + 11) - 10 = 24$

728.  $[2, 6, 10, 12] - 9$  个解:

1.  $12 * (10 - (2 + 6)) = 24$
2.  $12 * (2 * 6 - 10) = 24$
3.  $12 * (2 + 10) / 6 = 24$
4.  $12 * (10 - 6) / 2 = 24$
5.  $(6 * 10 - 12) / 2 = 24$
6.  $6 * (2 + 12 - 10) = 24$
7.  $6 * (10 - 12 / 2) = 24$
8.  $2 * (10 + 12 / 6) = 24$
9.  $2 * 6 * (12 - 10) = 24$

729.  $[2, 6, 10, 13] - 4$  个解:

1.  $(2 + 6) * (13 - 10) = 24$
2.  $6 + 13 + 10 / 2 = 24$
3.  $10 - 2 * (6 - 13) = 24$
4.  $10 + 2 * (13 - 6) = 24$

730.  $[2, 6, 11, 11] -$  无解

731.  $[2, 6, 11, 12] - 3$  个解:

1.  $2 * 11 + 12 / 6 = 24$
2.  $12 / (6 - 11 / 2) = 24$
3.  $2 + 11 * 12 / 6 = 24$

732.  $[2, 6, 11, 13] - 2$  个解:

1.  $6 * (2 + 13 - 11) = 24$
2.  $2 * 6 * (13 - 11) = 24$

733.  $[2, 6, 12, 12] - 5$  个解:

1.  $6 + 12 + 12 / 2 = 24$
2.  $2 * (6 + 12) - 12 = 24$
3.  $12 - 2 * (6 - 12) = 24$
4.  $12 + 2 * (12 - 6) = 24$
5.  $6 * 12 / 2 - 12 = 24$

734.  $[2, 6, 12, 13] - 3$  个解:

1.  $2 * 13 - 12 / 6 = 24$
2.  $12 / (13 / 2 - 6) = 24$
3.  $12 * 13 / 6 - 2 = 24$

735.  $[2, 6, 13, 13] -$  无解

736.  $[2, 7, 7, 7] -$  无解

737.  $[2, 7, 7, 8] - 2$  个解:

1.  $8 * (2 + 7 / 7) = 24$
2.  $2 + 7 + 7 + 8 = 24$

738.  $[2, 7, 7, 9] -$  无解

739.  $[2, 7, 7, 10] - 1$  个解:

1.  $7 * (2 + 10 / 7) = 24$

740.  $[2, 7, 7, 11] - 2$  个解:

1.  $7 * (7 - 2) - 11 = 24$
2.  $2 * (11 + 7 / 7) = 24$

741.  $[2, 7, 7, 12] - 5$  个解:

1.  $12 * (2 + 7 - 7) = 24$
2.  $7 + 2 * 12 - 7 = 24$
3.  $2 * (7 + 12 - 7) = 24$
4.  $2 * 7 * 12 / 7 = 24$
5.  $7 + 7 + 12 - 2 = 24$

742.  $[2, 7, 7, 13] - 1$  个解:

1.  $2 * (13 - 7 / 7) = 24$

743.  $[2, 7, 8, 8] - 3$  个解:

1.  $8 * (2 + 8 - 7) = 24$
2.  $8 * (7 - 8 / 2) = 24$
3.  $(7 * 8 - 8) / 2 = 24$

744.  $[2, 7, 8, 9] - 1$  个解:

1.  $2 * (7 + 9) - 8 = 24$

745.  $[2, 7, 8, 10] -$  无解

746.  $[2, 7, 8, 11] - 5$  个解:

1.  $8 * (2 * 7 - 11) = 24$
2.  $(2 - 8) * (7 - 11) = 24$
3.  $(8 - 2) * (11 - 7) = 24$
4.  $7 + 8 + 11 - 2 = 24$
5.  $2 * (8 + 11 - 7) = 24$

747.  $[2, 7, 8, 12] - 3$  个解:

1.  $8 * (12 - (2 + 7)) = 24$
2.  $2 * 12 / (8 - 7) = 24$
3.  $2 * 12 * (8 - 7) = 24$

748.  $[2, 7, 8, 13] - 3$  个解:

1.  $7 + 13 + 8 / 2 = 24$
2.  $2 * (7 + 13 - 8) = 24$
3.  $8 * (13 - 7) / 2 = 24$

749.  $[2, 7, 9, 9] -$  无解

750.  $[2, 7, 9, 10] - 3$  个解:

1.  $(9 - 7) * (2 + 10) = 24$
2.  $7 + 9 + 10 - 2 = 24$
3.  $2 * (9 + 10 - 7) = 24$

751.  $[2, 7, 9, 11] - 3$  个解:

1.  $2 - 11 * (7 - 9) = 24$
2.  $2 + 11 * (9 - 7) = 24$
3.  $9 + 2 * 11 - 7 = 24$

752.  $[2, 7, 9, 12] -$  无解

753.  $[2, 7, 9, 13] - 3$  个解:

1.  $13 + 2 * 9 - 7 = 24$
2.  $13 * (9 - 7) - 2 = 24$
3.  $7 + 2 * 13 - 9 = 24$

754.  $[2, 7, 10, 10] - 5$  个解:

1.  $(2 - 10) * (7 - 10) = 24$

2.  $(10 - 2) * (10 - 7) = 24$
3.  $2 * (7 + 10) - 10 = 24$
4.  $(7 - 10) * (2 - 10) = 24$
5.  $(10 - 7) * (10 - 2) = 24$

755.  $[2, 7, 10, 11] - 2$  个解:

1.  $11 + 2 * 10 - 7 = 24$
2.  $7 * 10 / 2 - 11 = 24$

756.  $[2, 7, 10, 12] - 3$  个解:

1.  $10 * 12 / (7 - 2) = 24$
2.  $12 * (7 - 10 / 2) = 24$
3.  $7 + 12 + 10 / 2 = 24$

757.  $[2, 7, 10, 13] -$  无解

758.  $[2, 7, 11, 11] -$  无解

759.  $[2, 7, 11, 12] - 4$  个解:

1.  $12 * (11 - (2 + 7)) = 24$
2.  $2 * (7 + 11) - 12 = 24$
3.  $12 * (11 - 7) / 2 = 24$
4.  $7 + 11 + 12 / 2 = 24$

760.  $[2, 7, 11, 13] -$  无解

761.  $[2, 7, 12, 12] - 2$  个解:

1.  $12 * (2 * 7 - 12) = 24$
2.  $12 * (2 + 12) / 7 = 24$

762.  $[2, 7, 12, 13] - 3$  个解:

1.  $12 / (7 - 13 / 2) = 24$
2.  $12 - 2 * (7 - 13) = 24$
3.  $12 + 2 * (13 - 7) = 24$

763.  $[2, 7, 13, 13] -$  无解

764.  $[2, 8, 8, 8] - 3$  个解:

1.  $2 * (8 + 8) - 8 = 24$
2.  $8 * 8 / 2 - 8 = 24$
3.  $8 * (2 + 8 / 8) = 24$

765.  $[2, 8, 8, 9] - 1$  个解:

1.  $8 * (2 + 9 - 8) = 24$

766.  $[2, 8, 8, 10] - 2$  个解:

1.  $8 * (8 - 10 / 2) = 24$
2.  $8 + 8 + 10 - 2 = 24$

767.  $[2, 8, 8, 11] - 1$  个解:

1.  $2 * (11 + 8 / 8) = 24$

768.  $[2, 8, 8, 12] - 7$  个解:

1.  $12 * (2 + 8 - 8) = 24$
2.  $(2 - 8) * (8 - 12) = 24$
3.  $(8 - 2) * (12 - 8) = 24$
4.  $8 + 12 + 8 / 2 = 24$
5.  $8 + 2 * 12 - 8 = 24$
6.  $2 * (8 + 12 - 8) = 24$
7.  $2 * 8 * 12 / 8 = 24$

769.  $[2, 8, 8, 13] - 3$  个解:

1.  $8 * (13 - (2 + 8)) = 24$
2.  $8 * (2 * 8 - 13) = 24$
3.  $2 * (13 - 8 / 8) = 24$

770.  $[2, 8, 9, 9] - 2$  个解:

1.  $8 + 9 + 9 - 2 = 24$
2.  $8 * (2 + 9 / 9) = 24$

771.  $[2, 8, 9, 10] - 2$  个解:

1.  $2 * (8 + 9) - 10 = 24$
2.  $8 * (2 + 10 - 9) = 24$

772.  $[2, 8, 9, 11] - 2$  个解:

1.  $9 + 11 + 8 / 2 = 24$
2.  $2 * (9 + 11 - 8) = 24$

773.  $[2, 8, 9, 12] - 5$  个解:

1.  $2 * 12 / (9 - 8) = 24$
2.  $2 * 12 * (9 - 8) = 24$
3.  $8 * 9 / 2 - 12 = 24$
4.  $8 * (9 - 12 / 2) = 24$
5.  $9 * (2 + 8 / 12) = 24$

774.  $[2, 8, 9, 13] - 4$  个解:

1.  $(2 - 8) * (9 - 13) = 24$
2.  $(8 - 2) * (13 - 9) = 24$
3.  $2 * (8 + 13 - 9) = 24$
4.  $9 / (2 - 13 / 8) = 24$

775.  $[2, 8, 10, 10] - 5$  个解:

1.  $10 + 10 + 8 / 2 = 24$
2.  $(2 + 10) * (10 - 8) = 24$
3.  $(10 - 8) * (2 + 10) = 24$
4.  $2 * (10 + 10 - 8) = 24$
5.  $8 * (2 + 10 / 10) = 24$

776.  $[2, 8, 10, 11] - 7$  个解:

1.  $(2 - 10) * (8 - 11) = 24$
2.  $(10 - 2) * (11 - 8) = 24$
3.  $8 + 11 + 10 / 2 = 24$
4.  $2 - 11 * (8 - 10) = 24$
5.  $2 + 11 * (10 - 8) = 24$
6.  $8 * (2 + 11 - 10) = 24$
7.  $10 + 2 * 11 - 8 = 24$

777.  $[2, 8, 10, 12] - 3$  个解:

1.  $12 + 2 * 10 - 8 = 24$
2.  $2 * (8 + 10) - 12 = 24$
3.  $8 + 10 + 12 / 2 = 24$

778.  $[2, 8, 10, 13] - 2$  个解:

1.  $13 * (10 - 8) - 2 = 24$
2.  $8 + 2 * 13 - 10 = 24$

779.  $[2, 8, 11, 11] - 1$  个解:

1.  $8 * (2 + 11 / 11) = 24$

780.  $[2, 8, 11, 12] - 1$  个解:

1.  $8 * (2 + 12 - 11) = 24$

781.  $[2, 8, 11, 13] -$  无解

782.  $[2, 8, 12, 12] - 6$  个解:

1.  $12 * (12 - (2 + 8)) = 24$
2.  $12 * 12 / (8 - 2) = 24$
3.  $12 * (8 - 12 / 2) = 24$
4.  $12 * (12 - 8) / 2 = 24$
5.  $12 / (2 - 12 / 8) = 24$
6.  $8 * (2 + 12 / 12) = 24$

783.  $[2, 8, 12, 13] - 1$  个解:

1.  $8 * (2 + 13 - 12) = 24$

784.  $[2, 8, 13, 13] - 1$  个解:

1.  $8 * (2 + 13 / 13) = 24$

785.  $[2, 9, 9, 9] -$  无解

786.  $[2, 9, 9, 10] -$  无解

787.  $[2, 9, 9, 11] - 1$  个解:

1.  $2 * (11 + 9 / 9) = 24$

788.  $[2, 9, 9, 12] - 6$  个解:

1.  $12 * (2 + 9 - 9) = 24$

2.  $2 * (9 + 9) - 12 = 24$
3.  $9 + 2 * 12 - 9 = 24$
4.  $9 + 9 + 12 / 2 = 24$
5.  $2 * (9 + 12 - 9) = 24$
6.  $2 * 9 * 12 / 9 = 24$

789.  $[2, 9, 9, 13] - 1$  个解:

1.  $2 * (13 - 9 / 9) = 24$

790.  $[2, 9, 10, 10] - 1$  个解:

1.  $9 + 10 + 10 / 2 = 24$

791.  $[2, 9, 10, 11] - 2$  个解:

1.  $(2 + 10) * (11 - 9) = 24$
2.  $2 * (10 + 11 - 9) = 24$

792.  $[2, 9, 10, 12] - 4$  个解:

1.  $(2 - 10) * (9 - 12) = 24$
2.  $(10 - 2) * (12 - 9) = 24$
3.  $2 * 12 / (10 - 9) = 24$
4.  $2 * 12 * (10 - 9) = 24$

793.  $[2, 9, 10, 13] - 2$  个解:

1.  $13 + 2 * 10 - 9 = 24$
2.  $2 * (9 + 13 - 10) = 24$

794.  $[2, 9, 11, 11] - 3$  个解:

1.  $11 + 2 * 11 - 9 = 24$
2.  $2 - 11 * (9 - 11) = 24$
3.  $2 + 11 * (11 - 9) = 24$

795.  $[2, 9, 11, 12] -$  无解

796.  $[2, 9, 11, 13] - 2$  个解:

1.  $13 * (11 - 9) - 2 = 24$
2.  $9 + 2 * 13 - 11 = 24$

797.  $[2, 9, 12, 12] -$  无解

798.  $[2, 9, 12, 13] - 2$  个解:

1.  $12 * (13 - (2 + 9)) = 24$
2.  $12 * (13 - 9) / 2 = 24$

799.  $[2, 9, 13, 13] - 1$  个解:

1.  $13 + (9 + 13) / 2 = 24$

800.  $[2, 10, 10, 10] -$  无解

801.  $[2, 10, 10, 11] - 1$  个解:

1.  $2 * (11 + 10 / 10) = 24$

802.  $[2, 10, 10, 12] - 5$  个解:

1.  $(2 + 10) * (12 - 10) = 24$
2.  $12 * (2 + 10 - 10) = 24$
3.  $10 + 2 * 12 - 10 = 24$
4.  $2 * (10 + 12 - 10) = 24$
5.  $2 * 10 * 12 / 10 = 24$

803.  $[2, 10, 10, 13] - 3$  个解:

1.  $(2 - 10) * (10 - 13) = 24$
2.  $(10 - 2) * (13 - 10) = 24$
3.  $2 * (13 - 10 / 10) = 24$

804.  $[2, 10, 11, 11] - 1$  个解:

1.  $2 * (11 + 11 - 10) = 24$

805.  $[2, 10, 11, 12] - 5$  个解:

1.  $12 + 2 * 11 - 10 = 24$
2.  $2 * 12 / (11 - 10) = 24$
3.  $2 * 12 * (11 - 10) = 24$
4.  $2 - 11 * (10 - 12) = 24$
5.  $2 + 11 * (12 - 10) = 24$

806.  $[2, 10, 11, 13] - 2$  个解:

1.  $(2 + 10) * (13 - 11) = 24$
2.  $2 * (10 + 13 - 11) = 24$

807.  $[2, 10, 12, 12] -$  无解

808.  $[2, 10, 12, 13] - 3$  个解:

1.  $13 + (10 + 12) / 2 = 24$
2.  $13 * (12 - 10) - 2 = 24$
3.  $10 + 2 * 13 - 12 = 24$

809.  $[2, 10, 13, 13] -$  无解

810.  $[2, 11, 11, 11] - 1$  个解:

1.  $2 * (11 + 11 / 11) = 24$

811.  $[2, 11, 11, 12] - 4$  个解:

1.  $12 * (2 + 11 - 11) = 24$
2.  $11 + 2 * 12 - 11 = 24$
3.  $2 * (11 + 12 - 11) = 24$
4.  $2 * 11 * 12 / 11 = 24$

812.  $[2, 11, 11, 13] - 5$  个解:

1.  $13 + 2 * 11 - 11 = 24$
2.  $13 + (11 + 11) / 2 = 24$

3.  $2 * (13 - 11 / 11) = 24$

4.  $2 - 11 * (11 - 13) = 24$

5.  $2 + 11 * (13 - 11) = 24$

813.  $[2, 11, 12, 12] - 3$  个解:

1.  $2 * 12 / (12 - 11) = 24$
2.  $2 * 12 * (12 - 11) = 24$
3.  $2 * (11 + 12 / 12) = 24$

814.  $[2, 11, 12, 13] - 2$  个解:

1.  $12 + (11 + 13) / 2 = 24$
2.  $2 * (11 + 13 - 12) = 24$

815.  $[2, 11, 13, 13] - 4$  个解:

1.  $11 + 2 * 13 - 13 = 24$
2.  $13 * (13 - 11) - 2 = 24$
3.  $11 + (13 + 13) / 2 = 24$
4.  $2 * (11 + 13 / 13) = 24$

816.  $[2, 12, 12, 12] - 5$  个解:

1.  $12 * (2 + 12 - 12) = 24$
2.  $12 + 2 * 12 - 12 = 24$
3.  $12 + (12 + 12) / 2 = 24$
4.  $2 * (12 + 12 - 12) = 24$
5.  $2 * 12 * 12 / 12 = 24$

817.  $[2, 12, 12, 13] - 3$  个解:

1.  $2 * 12 / (13 - 12) = 24$
2.  $2 * (13 - 12 / 12) = 24$
3.  $2 * 12 * (13 - 12) = 24$

818.  $[2, 12, 13, 13] - 4$  个解:

1.  $13 + 2 * 12 - 13 = 24$
2.  $12 * (2 + 13 - 13) = 24$
3.  $2 * (12 + 13 - 13) = 24$
4.  $2 * 12 * 13 / 13 = 24$

819.  $[2, 13, 13, 13] - 1$  个解:

1.  $2 * (13 - 13 / 13) = 24$

820.  $[3, 3, 3, 3] - 1$  个解:

1.  $3 * 3 * 3 - 3 = 24$

821.  $[3, 3, 3, 4] - 2$  个解:

1.  $4 * (3 * 3 - 3) = 24$
2.  $3 + 3 * (3 + 4) = 24$

822.  $[3, 3, 3, 5] - 1$  个解:

1.  $3 * 3 + 3 * 5 = 24$

823.  $[3, 3, 3, 6]$  - 4 个解:

1.  $6 + 3 * (3 + 3) = 24$
2.  $6 * (3 + 3 / 3) = 24$
3.  $3 * (3 + 6) - 3 = 24$
4.  $3 + 3 + 3 * 6 = 24$

824.  $[3, 3, 3, 7]$  - 2 个解:

1.  $(3 + 3) * (7 - 3) = 24$
2.  $3 * (7 + 3 / 3) = 24$

825.  $[3, 3, 3, 8]$  - 4 个解:

1.  $8 * (3 + 3 - 3) = 24$
2.  $3 * (3 + 8 - 3) = 24$
3.  $3 + 3 * 8 - 3 = 24$
4.  $3 * 3 * 8 / 3 = 24$

826.  $[3, 3, 3, 9]$  - 1 个解:

1.  $3 * (9 - 3 / 3) = 24$

827.  $[3, 3, 3, 10]$  - 3 个解:

1.  $3 * 10 - (3 + 3) = 24$
2.  $3 - 3 * (3 - 10) = 24$
3.  $3 + 3 * (10 - 3) = 24$

828.  $[3, 3, 3, 11]$  - 1 个解:

1.  $3 * 11 - 3 * 3 = 24$

829.  $[3, 3, 3, 12]$  - 4 个解:

1.  $12 * (3 + 3) / 3 = 24$
2.  $3 + 12 + 3 * 3 = 24$
3.  $12 * (3 - 3 / 3) = 24$
4.  $3 * (12 - 3) - 3 = 24$

830.  $[3, 3, 3, 13]$  - 无解

831.  $[3, 3, 4, 4]$  - 2 个解:

1.  $3 * 4 + 3 * 4 = 24$
2.  $3 * (3 * 4 - 4) = 24$

832.  $[3, 3, 4, 5]$  - 3 个解:

1.  $4 * (5 + 3 / 3) = 24$
2.  $3 * 4 * (5 - 3) = 24$
3.  $3 * (4 + 5) - 3 = 24$

833.  $[3, 3, 4, 6]$  - 4 个解:

1.  $6 * (3 + 4 - 3) = 24$
2.  $4 * (3 + 6 - 3) = 24$
3.  $3 + 4 * 6 - 3 = 24$

$$4. 3 * 4 * 6 / 3 = 24$$

834.  $[3, 3, 4, 7]$  - 2 个解:

1.  $4 * (7 - 3 / 3) = 24$
2.  $3 * (4 + 7 - 3) = 24$

835.  $[3, 3, 4, 8]$  - 4 个解:

1.  $(3 + 3) * (8 - 4) = 24$
2.  $8 * (4 - 3 / 3) = 24$
3.  $3 * 8 / (4 - 3) = 24$
4.  $3 * 8 * (4 - 3) = 24$

836.  $[3, 3, 4, 9]$  - 3 个解:

1.  $3 + 9 + 3 * 4 = 24$
2.  $3 * (3 + 9 - 4) = 24$
3.  $4 * (3 + 9 / 3) = 24$

837.  $[3, 3, 4, 10]$  - 无解

838.  $[3, 3, 4, 11]$  - 3 个解:

1.  $4 + 11 + 3 * 3 = 24$
2.  $3 - 3 * (4 - 11) = 24$
3.  $3 + 3 * (11 - 4) = 24$

839.  $[3, 3, 4, 12]$  - 5 个解:

1.  $12 * (3 + 3 - 4) = 24$
2.  $4 * (12 - (3 + 3)) = 24$
3.  $3 * 12 - 3 * 4 = 24$
4.  $3 * 3 * 4 - 12 = 24$
5.  $3 * (4 + 12 / 3) = 24$

840.  $[3, 3, 4, 13]$  - 1 个解:

1.  $3 * (13 - 4) - 3 = 24$

841.  $[3, 3, 5, 5]$  - 1 个解:

1.  $5 * 5 - 3 / 3 = 24$

842.  $[3, 3, 5, 6]$  - 7 个解:

1.  $5 * 6 - (3 + 3) = 24$
2.  $5 * (3 + 3) - 6 = 24$
3.  $6 * (3 * 3 - 5) = 24$
4.  $6 * (5 - 3 / 3) = 24$
5.  $(3 + 5) * (6 - 3) = 24$
6.  $3 + 6 + 3 * 5 = 24$
7.  $3 * (5 + 6 - 3) = 24$

843.  $[3, 3, 5, 7]$  - 1 个解:

1.  $3 * (3 * 5 - 7) = 24$

844.  $[3, 3, 5, 8]$  - 无解

845.  $[3, 3, 5, 9]$  - 4 个解:

1.  $(3 + 3) * (9 - 5) = 24$
2.  $9 * (3 + 5) / 3 = 24$
3.  $(5 - 3) * (3 + 9) = 24$
4.  $3 * (5 + 9 / 3) = 24$

846.  $[3, 3, 5, 10]$  - 3 个解:

1.  $5 + 10 + 3 * 3 = 24$
2.  $10 * (3 - 3 / 5) = 24$
3.  $3 * (3 + 10 - 5) = 24$

847.  $[3, 3, 5, 11]$  - 无解

848.  $[3, 3, 5, 12]$  - 3 个解:

1.  $12 + 3 * 5 - 3 = 24$
2.  $3 - 3 * (5 - 12) = 24$
3.  $3 + 3 * (12 - 5) = 24$

849.  $[3, 3, 5, 13]$  - 2 个解:

1.  $3 * 13 - 3 * 5 = 24$
2.  $3 + 3 + 5 + 13 = 24$

850.  $[3, 3, 6, 6]$  - 1 个解:

1.  $3 * (6 + 6 / 3) = 24$

851.  $[3, 3, 6, 7]$  - 4 个解:

1.  $3 - 7 * (3 - 6) = 24$
2.  $3 + 7 * (6 - 3) = 24$
3.  $3 * (3 + 7) - 6 = 24$
4.  $6 + 3 * 7 - 3 = 24$

852.  $[3, 3, 6, 8]$  - 2 个解:

1.  $8 * (3 * 3 - 6) = 24$
2.  $8 * (3 + 6) / 3 = 24$

853.  $[3, 3, 6, 9]$  - 7 个解:

1.  $6 + 9 + 3 * 3 = 24$
2.  $9 * (6 - 3) - 3 = 24$
3.  $9 + 3 * 6 - 3 = 24$
4.  $6 * (3 + 9) / 3 = 24$
5.  $6 - 3 * (3 - 9) = 24$
6.  $6 + 3 * (9 - 3) = 24$
7.  $3 + 3 * 9 - 6 = 24$

854.  $[3, 3, 6, 10]$  - 4 个解:

1.  $(3 + 3) * (10 - 6) = 24$
2.  $6 * (10 - (3 + 3)) = 24$

3.  $3 * (3 * 6 - 10) = 24$   
 4.  $3 * (10 - 6 / 3) = 24$
855.  $[3, 3, 6, 11] - 4$  个解:  
 1.  $3 * 11 - (3 + 6) = 24$   
 2.  $(3 - 6) * (3 - 11) = 24$   
 3.  $(6 - 3) * (11 - 3) = 24$   
 4.  $3 * (3 + 11 - 6) = 24$
856.  $[3, 3, 6, 12] - 2$  个解:  
 1.  $6 * (3 + 3) - 12 = 24$   
 2.  $3 + 3 + 6 + 12 = 24$
857.  $[3, 3, 6, 13] - 4$  个解:  
 1.  $6 * (13 - 3 * 3) = 24$   
 2.  $3 * (13 - 3) - 6 = 24$   
 3.  $3 - 3 * (6 - 13) = 24$   
 4.  $3 + 3 * (13 - 6) = 24$
858.  $[3, 3, 7, 7] - 1$  个解:  
 1.  $7 * (3 + 3 / 7) = 24$
859.  $[3, 3, 7, 8] - 1$  个解:  
 1.  $7 + 8 + 3 * 3 = 24$
860.  $[3, 3, 7, 9] - 4$  个解:  
 1.  $(3 - 7) * (3 - 9) = 24$   
 2.  $(7 - 3) * (9 - 3) = 24$   
 3.  $3 * 7 + 9 / 3 = 24$   
 4.  $3 + 7 * 9 / 3 = 24$
861.  $[3, 3, 7, 10] -$  无解
862.  $[3, 3, 7, 11] - 2$  个解:  
 1.  $(3 + 3) * (11 - 7) = 24$   
 2.  $3 + 3 + 7 + 11 = 24$
863.  $[3, 3, 7, 12] - 4$  个解:  
 1.  $12 * (3 * 3 - 7) = 24$   
 2.  $12 - 3 * (3 - 7) = 24$   
 3.  $12 + 3 * (7 - 3) = 24$   
 4.  $3 * (3 + 12 - 7) = 24$
864.  $[3, 3, 7, 13] - 1$  个解:  
 1.  $3 * (3 * 7 - 13) = 24$
865.  $[3, 3, 8, 8] - 1$  个解:  
 1.  $8 / (3 - 8 / 3) = 24$

866.  $[3, 3, 8, 9] - 4$  个解:  
 1.  $8 * (9 - (3 + 3)) = 24$   
 2.  $3 * (3 + 8) - 9 = 24$   
 3.  $9 - 3 * (3 - 8) = 24$   
 4.  $9 + 3 * (8 - 3) = 24$
867.  $[3, 3, 8, 10] - 2$  个解:  
 1.  $8 / (10 / 3 - 3) = 24$   
 2.  $3 + 3 + 8 + 10 = 24$
868.  $[3, 3, 8, 11] -$  无解
869.  $[3, 3, 8, 12] - 4$  个解:  
 1.  $(3 + 3) * (12 - 8) = 24$   
 2.  $12 * (8 - (3 + 3)) = 24$   
 3.  $8 * (12 - 3 * 3) = 24$   
 4.  $8 * (12 - 3) / 3 = 24$
870.  $[3, 3, 8, 13] - 1$  个解:  
 1.  $3 * (3 + 13 - 8) = 24$
871.  $[3, 3, 9, 9] - 4$  个解:  
 1.  $3 * 9 - 9 / 3 = 24$   
 2.  $9 * (3 - 3 / 9) = 24$   
 3.  $3 + 3 + 9 + 9 = 24$   
 4.  $9 * 9 / 3 - 3 = 24$
872.  $[3, 3, 9, 10] - 1$  个解:  
 1.  $3 + 3 * 10 - 9 = 24$
873.  $[3, 3, 9, 11] - 2$  个解:  
 1.  $3 * (11 - 9 / 3) = 24$   
 2.  $9 * (11 - 3) / 3 = 24$
874.  $[3, 3, 9, 12] - 3$  个解:  
 1.  $3 * 12 - (3 + 9) = 24$   
 2.  $3 * (3 + 9) - 12 = 24$   
 3.  $12 * (9 - 3) / 3 = 24$
875.  $[3, 3, 9, 13] - 1$  个解:  
 1.  $(3 + 3) * (13 - 9) = 24$
876.  $[3, 3, 10, 10] -$  无解
877.  $[3, 3, 10, 11] -$  无解
878.  $[3, 3, 10, 12] -$  无解
879.  $[3, 3, 10, 13] - 1$  个解:

1.  $10 + 13 + 3 / 3 = 24$
880.  $[3, 3, 11, 11] -$  无解
881.  $[3, 3, 11, 12] - 3$  个解:  
 1.  $12 * (11 - 3 * 3) = 24$   
 2.  $11 + 12 + 3 / 3 = 24$   
 3.  $3 + 3 * 11 - 12 = 24$
882.  $[3, 3, 11, 13] - 4$  个解:  
 1.  $13 + 3 * 11 / 3 = 24$   
 2.  $11 + 3 * 13 / 3 = 24$   
 3.  $3 + 11 + 13 - 3 = 24$   
 4.  $3 * (11 + 13) / 3 = 24$
883.  $[3, 3, 12, 12] - 5$  个解:  
 1.  $12 * 12 / (3 + 3) = 24$   
 2.  $12 + 3 * 12 / 3 = 24$   
 3.  $3 * (12 - 12 / 3) = 24$   
 4.  $3 + 12 + 12 - 3 = 24$   
 5.  $3 * (12 + 12) / 3 = 24$
884.  $[3, 3, 12, 13] - 2$  个解:  
 1.  $12 + 13 - 3 / 3 = 24$   
 2.  $3 * 13 - (3 + 12) = 24$
885.  $[3, 3, 13, 13] -$  无解
886.  $[3, 4, 4, 4] - 1$  个解:  
 1.  $4 * (3 + 4) - 4 = 24$
887.  $[3, 4, 4, 5] - 2$  个解:  
 1.  $3 + 5 + 4 * 4 = 24$   
 2.  $4 * (4 + 5 - 3) = 24$
888.  $[3, 4, 4, 6] - 7$  个解:  
 1.  $4 * 6 / (4 - 3) = 24$   
 2.  $4 * 6 * (4 - 3) = 24$   
 3.  $4 * (3 * 4 - 6) = 24$   
 4.  $(4 + 4) * (6 - 3) = 24$   
 5.  $6 * (3 + 4 / 4) = 24$   
 6.  $4 * (4 + 6 / 3) = 24$   
 7.  $3 * 4 * (6 - 4) = 24$
889.  $[3, 4, 4, 7] - 2$  个解:  
 1.  $3 * (7 + 4 / 4) = 24$   
 2.  $4 * (3 + 7 - 4) = 24$
890.  $[3, 4, 4, 8] - 8$  个解:

1.  $8 * (3 + 4 - 4) = 24$
2.  $4 + 8 + 3 * 4 = 24$
3.  $3 * (4 * 4 - 8) = 24$
4.  $4 - 4 * (3 - 8) = 24$
5.  $4 + 4 * (8 - 3) = 24$
6.  $4 + 3 * 8 - 4 = 24$
7.  $3 * (4 + 8 - 4) = 24$
8.  $3 * 4 * 8 / 4 = 24$

891.  $[3, 4, 4, 9] - 4$  个解:

1.  $4 * 9 - 3 * 4 = 24$
2.  $9 * (4 - 4 / 3) = 24$
3.  $9 * (4 + 4) / 3 = 24$
4.  $3 * (9 - 4 / 4) = 24$

892.  $[3, 4, 4, 10] - 1$  个解:

1.  $4 * (10 - 3) - 4 = 24$

893.  $[3, 4, 4, 11] - 1$  个解:

1.  $11 + 4 * 4 - 3 = 24$

894.  $[3, 4, 4, 12] - 2$  个解:

1.  $12 * (3 - 4 / 4) = 24$
2.  $4 * (3 + 12 / 4) = 24$

895.  $[3, 4, 4, 13] - 2$  个解:

1.  $4 * (13 - (3 + 4)) = 24$
2.  $3 + 4 + 4 + 13 = 24$

896.  $[3, 4, 5, 5] - 2$  个解:

1.  $4 + 5 + 3 * 5 = 24$
2.  $3 + 5 * 5 - 4 = 24$

897.  $[3, 4, 5, 6] - 1$  个解:

1.  $6 * (3 + 5 - 4) = 24$

898.  $[3, 4, 5, 7] - 7$  个解:

1.  $5 + 7 + 3 * 4 = 24$
2.  $(3 + 5) * (7 - 4) = 24$
3.  $7 + 4 * 5 - 3 = 24$
4.  $4 - 5 * (3 - 7) = 24$
5.  $4 + 5 * (7 - 3) = 24$
6.  $3 * (5 + 7 - 4) = 24$
7.  $3 * 4 * (7 - 5) = 24$

899.  $[3, 4, 5, 8] - 7$  个解:

1.  $4 * 8 - (3 + 5) = 24$
2.  $4 * (3 + 5) - 8 = 24$
3.  $(5 - 3) * (4 + 8) = 24$

$$4. 8 * (4 + 5) / 3 = 24$$

$$5. 3 * 8 / (5 - 4) = 24$$

$$6. 3 * 8 * (5 - 4) = 24$$

$$7. 4 * (3 + 8 - 5) = 24$$

900.  $[3, 4, 5, 9] - 2$  个解:

1.  $4 * (3 * 5 - 9) = 24$
2.  $3 * (4 + 9 - 5) = 24$

901.  $[3, 4, 5, 10] - 3$  个解:

1.  $4 - 10 * (3 - 5) = 24$
2.  $4 + 10 * (5 - 3) = 24$
3.  $3 * 4 * 10 / 5 = 24$

902.  $[3, 4, 5, 11] - 2$  个解:

1.  $5 * (3 + 4) - 11 = 24$
2.  $3 * 11 - (4 + 5) = 24$

903.  $[3, 4, 5, 12] - 8$  个解:

1.  $12 * (3 + 4 - 5) = 24$
2.  $12 * (3 + 5) / 4 = 24$
3.  $4 * 12 / (5 - 3) = 24$
4.  $4 * 5 + 12 / 3 = 24$
5.  $3 * (4 * 5 - 12) = 24$
6.  $3 * (5 + 12 / 4) = 24$
7.  $3 + 4 + 5 + 12 = 24$
8.  $4 + 5 * 12 / 3 = 24$

904.  $[3, 4, 5, 13] - 2$  个解:

1.  $13 + 3 * 5 - 4 = 24$
2.  $4 * (5 + 13) / 3 = 24$

905.  $[3, 4, 6, 6] - 4$  个解:

1.  $6 * 6 - 3 * 4 = 24$
2.  $6 + 6 + 3 * 4 = 24$
3.  $3 * (4 + 6) - 6 = 24$
4.  $3 * (6 + 6 - 4) = 24$

906.  $[3, 4, 6, 7] -$  无解

907.  $[3, 4, 6, 8] - 5$  个解:

1.  $6 * (3 * 4 - 8) = 24$
2.  $4 * (8 - 6 / 3) = 24$
3.  $6 * (4 + 8) / 3 = 24$
4.  $3 * (6 + 8 / 4) = 24$
5.  $3 * 4 * (8 - 6) = 24$

908.  $[3, 4, 6, 9] - 2$  个解:

1.  $(6 - 4) * (3 + 9) = 24$

$$2. 4 * (3 + 9 - 6) = 24$$

909.  $[3, 4, 6, 10] - 5$  个解:

1.  $10 + 3 * 6 - 4 = 24$
2.  $3 * (4 + 10 - 6) = 24$
3.  $6 - 3 * (4 - 10) = 24$
4.  $6 + 3 * (10 - 4) = 24$
5.  $4 + 6 * 10 / 3 = 24$

910.  $[3, 4, 6, 11] - 3$  个解:

1.  $6 * (11 - (3 + 4)) = 24$
2.  $6 / (3 - 11 / 4) = 24$
3.  $3 + 4 + 6 + 11 = 24$

911.  $[3, 4, 6, 12] - 9$  个解:

1.  $4 * (3 + 6) - 12 = 24$
2.  $(3 - 6) * (4 - 12) = 24$
3.  $12 - 4 * (3 - 6) = 24$
4.  $(6 - 3) * (12 - 4) = 24$
5.  $12 + 4 * (6 - 3) = 24$
6.  $4 * (3 * 6 - 12) = 24$
7.  $12 * (4 - 6 / 3) = 24$
8.  $3 * 4 * 12 / 6 = 24$
9.  $4 * (6 + 12) / 3 = 24$

912.  $[3, 4, 6, 13] - 2$  个解:

1.  $6 * (3 + 13) / 4 = 24$
2.  $6 / (13 / 4 - 3) = 24$

913.  $[3, 4, 7, 7] - 5$  个解:

1.  $7 * (7 - 3) - 4 = 24$
2.  $7 + 3 * 7 - 4 = 24$
3.  $3 - 7 * (4 - 7) = 24$
4.  $3 + 7 * (7 - 4) = 24$
5.  $3 + 4 * 7 - 7 = 24$

914.  $[3, 4, 7, 8] - 2$  个解:

1.  $8 - 4 * (3 - 7) = 24$
2.  $8 + 4 * (7 - 3) = 24$

915.  $[3, 4, 7, 9] - 4$  个解:

1.  $3 * (4 + 7) - 9 = 24$
2.  $9 * (7 - 4) - 3 = 24$
3.  $4 + 3 * 9 - 7 = 24$
4.  $3 * 4 * (9 - 7) = 24$

916.  $[3, 4, 7, 10] - 4$  个解:

1.  $(3 - 7) * (4 - 10) = 24$
2.  $(7 - 3) * (10 - 4) = 24$



$$3. 4 * (3 + 10 - 7) = 24$$

$$4. 3 + 4 + 7 + 10 = 24$$

917.  $[3, 4, 7, 11] - 4$  个解:

$$1. (4 - 7) * (3 - 11) = 24$$

$$2. (7 - 4) * (11 - 3) = 24$$

$$3. 3 * (4 + 11 - 7) = 24$$

$$4. 4 * (7 + 11) / 3 = 24$$

918.  $[3, 4, 7, 12] - 4$  个解:

$$1. 3 * 7 + 12 / 4 = 24$$

$$2. 4 * 7 - 12 / 3 = 24$$

$$3. 7 * 12 / 3 - 4 = 24$$

$$4. 3 + 7 * 12 / 4 = 24$$

919.  $[3, 4, 7, 13] -$  无解

920.  $[3, 4, 8, 8] -$  无解

921.  $[3, 4, 8, 9] - 5$  个解:

$$1. 8 * (3 * 4 - 9) = 24$$

$$2. (4 - 8) * (3 - 9) = 24$$

$$3. (8 - 4) * (9 - 3) = 24$$

$$4. 8 * (3 + 9) / 4 = 24$$

$$5. 3 + 4 + 8 + 9 = 24$$

922.  $[3, 4, 8, 10] - 4$  个解:

$$1. 8 * (10 - (3 + 4)) = 24$$

$$2. 3 * (10 - 8 / 4) = 24$$

$$3. 4 * (8 + 10) / 3 = 24$$

$$4. 3 * 4 * (10 - 8) = 24$$

923.  $[3, 4, 8, 11] - 4$  个解:

$$1. 3 + 4 * 8 - 11 = 24$$

$$2. 4 * (3 + 11 - 8) = 24$$

$$3. 4 * (11 - 3) - 8 = 24$$

$$4. 8 / (4 - 11 / 3) = 24$$

924.  $[3, 4, 8, 12] - 7$  个解:

$$1. 4 * 12 - 3 * 8 = 24$$

$$2. 3 * 12 - (4 + 8) = 24$$

$$3. 3 * (4 + 8) - 12 = 24$$

$$4. 12 - 3 * (4 - 8) = 24$$

$$5. 12 + 3 * (8 - 4) = 24$$

$$6. 3 * (4 + 12 - 8) = 24$$

$$7. 8 + 4 * 12 / 3 = 24$$

925.  $[3, 4, 8, 13] - 2$  个解:

$$1. 8 / (13 / 3 - 4) = 24$$

$$2. 8 * (13 - 4) / 3 = 24$$

926.  $[3, 4, 9, 9] - 5$  个解:

$$1. 4 * 9 - (3 + 9) = 24$$

$$2. 4 * (9 - 9 / 3) = 24$$

$$3. 9 - 3 * (4 - 9) = 24$$

$$4. 9 + 3 * (9 - 4) = 24$$

$$5. 4 * (9 + 9) / 3 = 24$$

927.  $[3, 4, 9, 10] -$  无解

928.  $[3, 4, 9, 11] - 2$  个解:

$$1. 3 * 4 * (11 - 9) = 24$$

$$2. (9 * 11 - 3) / 4 = 24$$

929.  $[3, 4, 9, 12] - 7$  个解:

$$1. 12 * (9 - (3 + 4)) = 24$$

$$2. 3 * 9 - 12 / 4 = 24$$

$$3. 12 + 4 * 9 / 3 = 24$$

$$4. 4 * (3 + 12 - 9) = 24$$

$$5. 9 * (12 - 4) / 3 = 24$$

$$6. 9 * (3 - 4 / 12) = 24$$

$$7. 9 * 12 / 4 - 3 = 24$$

930.  $[3, 4, 9, 13] - 1$  个解:

$$1. 3 * (4 + 13 - 9) = 24$$

931.  $[3, 4, 10, 10] - 1$  个解:

$$1. 4 + 3 * 10 - 10 = 24$$

932.  $[3, 4, 10, 11] -$  无解

933.  $[3, 4, 10, 12] - 5$  个解:

$$1. 12 * (3 * 4 - 10) = 24$$

$$2. 12 * (10 - 4) / 3 = 24$$

$$3. 12 / (3 - 10 / 4) = 24$$

$$4. 4 * (10 - 12 / 3) = 24$$

$$5. 3 * 4 * (12 - 10) = 24$$

934.  $[3, 4, 10, 13] - 3$  个解:

$$1. 4 * 10 - (3 + 13) = 24$$

$$2. 4 * (3 + 13 - 10) = 24$$

$$3. 4 + 10 + 13 - 3 = 24$$

935.  $[3, 4, 11, 11] -$  无解

936.  $[3, 4, 11, 12] - 3$  个解:

$$1. 12 * (11 - 3) / 4 = 24$$

$$2. 3 * (11 - 12 / 4) = 24$$

$$3. 4 + 11 + 12 - 3 = 24$$

937.  $[3, 4, 11, 13] - 13$  个解:

$$1. 13 - 11 * (3 - 4) = 24$$

$$2. 13 - 11 / (3 - 4) = 24$$

$$3. 11 - 13 * (3 - 4) = 24$$

$$4. 11 - 13 / (3 - 4) = 24$$

$$5. (4 - 3) * (11 + 13) = 24$$

$$6. (11 + 13) / (4 - 3) = 24$$

$$7. 13 + 11 * (4 - 3) = 24$$

$$8. 13 + 11 / (4 - 3) = 24$$

$$9. 11 + 13 * (4 - 3) = 24$$

$$10. 11 + 13 / (4 - 3) = 24$$

$$11. 4 + 3 * 11 - 13 = 24$$

$$12. 3 * 13 - (4 + 11) = 24$$

$$13. 3 * 4 * (13 - 11) = 24$$

938.  $[3, 4, 12, 12] - 7$  个解:

$$1. 12 - 12 * (3 - 4) = 24$$

$$2. 12 - 12 / (3 - 4) = 24$$

$$3. (4 - 3) * (12 + 12) = 24$$

$$4. (12 + 12) / (4 - 3) = 24$$

$$5. 12 + 12 * (4 - 3) = 24$$

$$6. 12 + 12 / (4 - 3) = 24$$

$$7. 4 * (12 - 3) - 12 = 24$$

939.  $[3, 4, 12, 13] - 1$  个解:

$$1. 3 + 12 + 13 - 4 = 24$$

940.  $[3, 4, 13, 13] -$  无解

941.  $[3, 5, 5, 5] -$  无解

942.  $[3, 5, 5, 6] - 2$  个解:

$$1. 3 * (5 + 5) - 6 = 24$$

$$2. 6 * (3 + 5 / 5) = 24$$

943.  $[3, 5, 5, 7] - 2$  个解:

$$1. (5 - 3) * (5 + 7) = 24$$

$$2. 3 * (7 + 5 / 5) = 24$$

944.  $[3, 5, 5, 8] - 5$  个解:

$$1. (3 + 5) * (8 - 5) = 24$$

$$2. 8 * (3 + 5 - 5) = 24$$

$$3. 5 + 3 * 8 - 5 = 24$$

$$4. 3 * (5 + 8 - 5) = 24$$

$$5. 3 * 5 * 8 / 5 = 24$$

945.  $[3, 5, 5, 9] - 2$  个解:

$$1. 3 * (9 - 5 / 5) = 24$$

$$2. 5 * (3 + 9 / 5) = 24$$

946. [3, 5, 5, 10] - 无解

947. [3, 5, 5, 11] - 1个解:

$$1. 3 + 5 + 5 + 11 = 24$$

948. [3, 5, 5, 12] - 1个解:

$$1. 12 * (3 - 5 / 5) = 24$$

949. [3, 5, 5, 13] - 无解

950. [3, 5, 6, 6] - 2个解:

$$1. (5 - 3) * (6 + 6) = 24$$

$$2. 6 * (3 + 6 - 5) = 24$$

951. [3, 5, 6, 7] - 2个解:

$$1. 6 * (5 + 7) / 3 = 24$$

$$2. 3 * (6 + 7 - 5) = 24$$

952. [3, 5, 6, 8] - 4个解:

$$1. 6 * 8 / (5 - 3) = 24$$

$$2. 8 * (5 - 6 / 3) = 24$$

$$3. 3 * 8 / (6 - 5) = 24$$

$$4. 3 * 8 * (6 - 5) = 24$$

953. [3, 5, 6, 9] - 9个解:

$$1. (3 + 5) * (9 - 6) = 24$$

$$2. 6 - 9 * (3 - 5) = 24$$

$$3. 6 + 9 * (5 - 3) = 24$$

$$4. 9 - 5 * (3 - 6) = 24$$

$$5. 9 + 5 * (6 - 3) = 24$$

$$6. 3 * (5 + 6) - 9 = 24$$

$$7. 3 + 5 * 6 - 9 = 24$$

$$8. 5 * (9 - 3) - 6 = 24$$

$$9. 3 * (5 + 9 - 6) = 24$$

954. [3, 5, 6, 10] - 2个解:

$$1. 3 * (6 + 10 / 5) = 24$$

$$2. 3 + 5 + 6 + 10 = 24$$

955. [3, 5, 6, 11] - 4个解:

$$1. 6 * (3 * 5 - 11) = 24$$

$$2. 11 + 3 * 6 - 5 = 24$$

$$3. 6 - 3 * (5 - 11) = 24$$

$$4. 6 + 3 * (11 - 5) = 24$$

956. [3, 5, 6, 12] - 4个解:

$$1. 12 * (3 + 5 - 6) = 24$$

$$2. 6 * (12 - (3 + 5)) = 24$$

$$3. 12 - 6 * (3 - 5) = 24$$

$$4. 12 + 6 * (5 - 3) = 24$$

957. [3, 5, 6, 13] - 2个解:

$$1. (3 - 6) * (5 - 13) = 24$$

$$2. (6 - 3) * (13 - 5) = 24$$

958. [3, 5, 7, 7] - 无解

959. [3, 5, 7, 8] - 4个解:

$$1. 8 + 3 * 7 - 5 = 24$$

$$2. 5 * 7 - (3 + 8) = 24$$

$$3. 3 - 7 * (5 - 8) = 24$$

$$4. 3 + 7 * (8 - 5) = 24$$

960. [3, 5, 7, 9] - 4个解:

$$1. 5 * 9 - 3 * 7 = 24$$

$$2. 9 * (5 - 7 / 3) = 24$$

$$3. (7 - 5) * (3 + 9) = 24$$

$$4. 3 + 5 + 7 + 9 = 24$$

961. [3, 5, 7, 10] - 4个解:

$$1. (3 + 5) * (10 - 7) = 24$$

$$2. 10 - 7 * (3 - 5) = 24$$

$$3. 10 + 7 * (5 - 3) = 24$$

$$4. 3 * (5 + 10 - 7) = 24$$

962. [3, 5, 7, 11] - 3个解:

$$1. (3 - 7) * (5 - 11) = 24$$

$$2. (7 - 3) * (11 - 5) = 24$$

$$3. (7 * 11 - 5) / 3 = 24$$

963. [3, 5, 7, 12] - 3个解:

$$1. 12 * (3 + 7) / 5 = 24$$

$$2. 3 * 12 - (5 + 7) = 24$$

$$3. 3 * (5 + 7) - 12 = 24$$

964. [3, 5, 7, 13] - 1个解:

$$1. (7 + 5 * 13) / 3 = 24$$

965. [3, 5, 8, 8] - 3个解:

$$1. 8 - 8 * (3 - 5) = 24$$

$$2. 8 + 8 * (5 - 3) = 24$$

$$3. 3 + 5 + 8 + 8 = 24$$

966. [3, 5, 8, 9] - 2个解:

$$1. 9 * (8 - 5) - 3 = 24$$

$$2. 5 + 3 * 9 - 8 = 24$$

967. [3, 5, 8, 10] - 无解

968. [3, 5, 8, 11] - 5个解:

$$1. (3 + 5) * (11 - 8) = 24$$

$$2. 8 * (11 - (3 + 5)) = 24$$

$$3. (5 - 8) * (3 - 11) = 24$$

$$4. (8 - 5) * (11 - 3) = 24$$

$$5. 3 * (5 + 11 - 8) = 24$$

969. [3, 5, 8, 12] - 2个解:

$$1. 8 * (3 * 5 - 12) = 24$$

$$2. 8 * (3 + 12) / 5 = 24$$

970. [3, 5, 8, 13] - 1个解:

$$1. 5 * 8 - (3 + 13) = 24$$

971. [3, 5, 9, 9] - 5个解:

$$1. (3 - 9) * (5 - 9) = 24$$

$$2. (9 - 3) * (9 - 5) = 24$$

$$3. (5 - 9) * (3 - 9) = 24$$

$$4. (9 - 5) * (9 - 3) = 24$$

$$5. 9 + 5 * 9 / 3 = 24$$

972. [3, 5, 9, 10] - 3个解:

$$1. 10 * (3 + 9) / 5 = 24$$

$$2. 9 - 3 * (5 - 10) = 24$$

$$3. 9 + 3 * (10 - 5) = 24$$

973. [3, 5, 9, 11] - 无解

974. [3, 5, 9, 12] - 5个解:

$$1. (3 + 5) * (12 - 9) = 24$$

$$2. 12 * (5 - 9 / 3) = 24$$

$$3. 12 - 3 * (5 - 9) = 24$$

$$4. 12 + 3 * (9 - 5) = 24$$

$$5. 3 * (5 + 12 - 9) = 24$$

975. [3, 5, 9, 13] - 3个解:

$$1. 9 * (13 - 5) / 3 = 24$$

$$2. 5 + 9 + 13 - 3 = 24$$

$$3. (3 + 9 * 13) / 5 = 24$$

976. [3, 5, 10, 10] - 1个解:

$$1. 3 * (10 - 10 / 5) = 24$$

977. [3, 5, 10, 11] - 2个解:

$$1. 5 * (10 - 3) - 11 = 24$$

$$2. 5 + 3 * 10 - 11 = 24$$

978.  $[3, 5, 10, 12] - 2$  个解:

1.  $12 * (10 - (3 + 5)) = 24$
2.  $5 + 10 + 12 - 3 = 24$

979.  $[3, 5, 10, 13] - 3$  个解:

1.  $(3 + 5) * (13 - 10) = 24$
2.  $3 * 13 - (5 + 10) = 24$
3.  $3 * (5 + 13 - 10) = 24$

980.  $[3, 5, 11, 11] - 1$  个解:

1.  $5 + 11 + 11 - 3 = 24$

981.  $[3, 5, 11, 12] - 1$  个解:

1.  $12 * (11 - 5) / 3 = 24$

982.  $[3, 5, 11, 13] -$  无解

983.  $[3, 5, 12, 12] - 2$  个解:

1.  $5 * 12 - 3 * 12 = 24$
2.  $(12 + 5 * 12) / 3 = 24$

984.  $[3, 5, 12, 13] - 2$  个解:

1.  $12 * (3 * 5 - 13) = 24$
2.  $12 * (13 - 3) / 5 = 24$

985.  $[3, 5, 13, 13] - 1$  个解:

1.  $3 + 13 + 13 - 5 = 24$

986.  $[3, 6, 6, 6] - 5$  个解:

1.  $6 - 6 * (3 - 6) = 24$
2.  $6 + 6 * (6 - 3) = 24$
3.  $6 * (6 - 6 / 3) = 24$
4.  $6 * (6 + 6) / 3 = 24$
5.  $6 * (3 + 6 / 6) = 24$

987.  $[3, 6, 6, 7] - 3$  个解:

1.  $6 * 7 - 3 * 6 = 24$
2.  $3 * (7 + 6 / 6) = 24$
3.  $6 * (3 + 7 - 6) = 24$

988.  $[3, 6, 6, 8] - 5$  个解:

1.  $8 * (3 + 6 - 6) = 24$
2.  $6 * (8 - 3) - 6 = 24$
3.  $6 + 3 * 8 - 6 = 24$
4.  $3 * (6 + 8 - 6) = 24$
5.  $3 * 6 * 8 / 6 = 24$

989.  $[3, 6, 6, 9] - 4$  个解:

1.  $6 * 6 - (3 + 9) = 24$
2.  $3 * (9 - 6 / 6) = 24$
3.  $6 + 6 * 9 / 3 = 24$
4.  $3 + 6 + 6 + 9 = 24$

990.  $[3, 6, 6, 10] - 1$  个解:

1.  $10 * (6 - 3) - 6 = 24$

991.  $[3, 6, 6, 11] - 1$  个解:

1.  $(6 + 6 * 11) / 3 = 24$

992.  $[3, 6, 6, 12] - 9$  个解:

1.  $6 * 12 / (6 - 3) = 24$
2.  $12 + 3 * 6 - 6 = 24$
3.  $3 * 12 - (6 + 6) = 24$
4.  $3 * (6 + 6) - 12 = 24$
5.  $12 + 6 * 6 / 3 = 24$
6.  $12 * (3 - 6 / 6) = 24$
7.  $6 - 3 * (6 - 12) = 24$
8.  $6 + 3 * (12 - 6) = 24$
9.  $3 * (6 + 12 / 6) = 24$

993.  $[3, 6, 6, 13] - 2$  个解:

1.  $6 * (13 - (3 + 6)) = 24$
2.  $(6 * 13 - 6) / 3 = 24$

994.  $[3, 6, 7, 7] - 2$  个解:

1.  $3 * (7 + 7 - 6) = 24$
2.  $6 * (3 + 7 / 7) = 24$

995.  $[3, 6, 7, 8] - 4$  个解:

1.  $3 * 8 / (7 - 6) = 24$
2.  $3 * 8 * (7 - 6) = 24$
3.  $6 * (3 + 8 - 7) = 24$
4.  $3 + 6 + 7 + 8 = 24$

996.  $[3, 6, 7, 9] - 5$  个解:

1.  $9 + 3 * 7 - 6 = 24$
2.  $6 * (7 - 9 / 3) = 24$
3.  $3 * (6 + 9 - 7) = 24$
4.  $3 - 7 * (6 - 9) = 24$
5.  $3 + 7 * (9 - 6) = 24$

997.  $[3, 6, 7, 10] - 1$  个解:

1.  $10 + 6 * 7 / 3 = 24$

998.  $[3, 6, 7, 11] -$  无解

999.  $[3, 6, 7, 12] - 3$  个解:

1.  $12 * (3 + 6 - 7) = 24$
2.  $(3 - 7) * (6 - 12) = 24$
3.  $(7 - 3) * (12 - 6) = 24$

1000.  $[3, 6, 7, 13] - 3$  个解:

1.  $13 + 3 * 6 - 7 = 24$
2.  $6 - 3 * (7 - 13) = 24$
3.  $6 + 3 * (13 - 7) = 24$

1001.  $[3, 6, 8, 8] - 3$  个解:

1.  $6 * 8 - 3 * 8 = 24$
2.  $8 + 6 * 8 / 3 = 24$
3.  $6 * (3 + 8 / 8) = 24$

1002.  $[3, 6, 8, 9] - 4$  个解:

1.  $8 * 9 / (6 - 3) = 24$
2.  $(8 - 6) * (3 + 9) = 24$
3.  $6 * (3 + 9 - 8) = 24$
4.  $8 * (6 - 9 / 3) = 24$

1003.  $[3, 6, 8, 10] - 1$  个解:

1.  $3 * (6 + 10 - 8) = 24$

1004.  $[3, 6, 8, 11] -$  无解

1005.  $[3, 6, 8, 12] - 2$  个解:

1.  $8 * (12 - (3 + 6)) = 24$
2.  $6 * (8 - 12 / 3) = 24$

1006.  $[3, 6, 8, 13] - 1$  个解:

1.  $6 + 8 + 13 - 3 = 24$

1007.  $[3, 6, 9, 9] - 3$  个解:

1.  $6 + 3 * 9 - 9 = 24$
2.  $9 * (9 - 6) - 3 = 24$
3.  $6 * (3 + 9 / 9) = 24$

1008.  $[3, 6, 9, 10] - 6$  个解:

1.  $(3 - 9) * (6 - 10) = 24$
2.  $(9 - 3) * (10 - 6) = 24$
3.  $6 * 9 - 3 * 10 = 24$
4.  $6 * (3 + 10 - 9) = 24$
5.  $9 * (6 - 10 / 3) = 24$
6.  $9 * 10 / 3 - 6 = 24$

1009.  $[3, 6, 9, 11] - 6$  个解:

1.  $11 * (6 - 3) - 9 = 24$
2.  $(6 - 9) * (3 - 11) = 24$

3.  $(9 - 6) * (11 - 3) = 24$
4.  $3 * (6 + 11 - 9) = 24$
5.  $9 - 3 * (6 - 11) = 24$
6.  $9 + 3 * (11 - 6) = 24$

1010.  $[3, 6, 9, 12] - 4$  个解:

1.  $12 * (3 + 9) / 6 = 24$
2.  $6 * (9 - 3) - 12 = 24$
3.  $3 * 6 * 12 / 9 = 24$
4.  $6 + 9 + 12 - 3 = 24$

1011.  $[3, 6, 9, 13] - 3$  个解:

1.  $9 + 13 + 6 / 3 = 24$
2.  $3 * 13 - (6 + 9) = 24$
3.  $9 * (3 + 13) / 6 = 24$

1012.  $[3, 6, 10, 10] - 2$  个解:

1.  $10 * (3 - 6 / 10) = 24$
2.  $6 * (3 + 10 / 10) = 24$

1013.  $[3, 6, 10, 11] - 2$  个解:

1.  $6 * (3 + 11 - 10) = 24$
2.  $6 + 10 + 11 - 3 = 24$

1014.  $[3, 6, 10, 12] - 8$  个解:

1.  $10 + 12 + 6 / 3 = 24$
2.  $6 + 3 * 10 - 12 = 24$
3.  $12 - 3 * (6 - 10) = 24$
4.  $12 + 3 * (10 - 6) = 24$
5.  $6 * 10 - 3 * 12 = 24$
6.  $(12 + 6 * 10) / 3 = 24$
7.  $3 * (6 + 12 - 10) = 24$
8.  $3 * (10 - 12 / 6) = 24$

1015.  $[3, 6, 10, 13] -$  无解

1016.  $[3, 6, 11, 11] - 2$  个解:

1.  $11 + 11 + 6 / 3 = 24$
2.  $6 * (3 + 11 / 11) = 24$

1017.  $[3, 6, 11, 12] - 2$  个解:

1.  $12 * (11 - (3 + 6)) = 24$
2.  $6 * (3 + 12 - 11) = 24$

1018.  $[3, 6, 11, 13] - 1$  个解:

1.  $3 * (6 + 13 - 11) = 24$

1019.  $[3, 6, 12, 12] - 4$  个解:

1.  $12 * (6 - 3) - 12 = 24$

$$2. 12 * (6 - 12 / 3) = 24$$

$$3. 12 * (12 - 6) / 3 = 24$$

$$4. 6 * (3 + 12 / 12) = 24$$

1020.  $[3, 6, 12, 13] - 1$  个解:

$$1. 6 * (3 + 13 - 12) = 24$$

1021.  $[3, 6, 13, 13] - 2$  个解:

1.  $13 + 13 - 6 / 3 = 24$
2.  $6 * (3 + 13 / 13) = 24$

1022.  $[3, 7, 7, 7] - 2$  个解:

1.  $3 * (7 + 7 / 7) = 24$
2.  $3 + 7 + 7 + 7 = 24$

1023.  $[3, 7, 7, 8] - 4$  个解:

1.  $8 * (3 + 7 - 7) = 24$
2.  $7 + 3 * 8 - 7 = 24$
3.  $3 * (7 + 8 - 7) = 24$
4.  $3 * 7 * 8 / 7 = 24$

1024.  $[3, 7, 7, 9] - 1$  个解:

$$1. 3 * (9 - 7 / 7) = 24$$

1025.  $[3, 7, 7, 10] - 3$  个解:

1.  $10 + 3 * 7 - 7 = 24$
2.  $3 - 7 * (7 - 10) = 24$
3.  $3 + 7 * (10 - 7) = 24$

1026.  $[3, 7, 7, 11] -$  无解

1027.  $[3, 7, 7, 12] - 1$  个解:

$$1. 12 * (3 - 7 / 7) = 24$$

1028.  $[3, 7, 7, 13] - 3$  个解:

1.  $(3 - 7) * (7 - 13) = 24$
2.  $(7 - 3) * (13 - 7) = 24$
3.  $7 + 7 + 13 - 3 = 24$

1029.  $[3, 7, 8, 8] - 4$  个解:

1.  $8 * (7 - 3) - 8 = 24$
2.  $3 * 8 / (8 - 7) = 24$
3.  $3 * 8 * (8 - 7) = 24$
4.  $3 * (7 + 8 / 8) = 24$

1030.  $[3, 7, 8, 9] - 1$  个解:

$$1. 3 * (7 + 9 - 8) = 24$$

1031.  $[3, 7, 8, 10] -$  无解

1032.  $[3, 7, 8, 11] - 4$  个解:

1.  $11 + 3 * 7 - 8 = 24$
2.  $7 * (8 - 3) - 11 = 24$
3.  $3 - 7 * (8 - 11) = 24$
4.  $3 + 7 * (11 - 8) = 24$

1033.  $[3, 7, 8, 12] - 4$  个解:

1.  $12 * (3 + 7 - 8) = 24$
2.  $8 * 12 / (7 - 3) = 24$
3.  $8 * (7 - 12 / 3) = 24$
4.  $7 + 8 + 12 - 3 = 24$

1034.  $[3, 7, 8, 13] - 2$  个解:

1.  $8 * (13 - (3 + 7)) = 24$
2.  $3 * 13 - (7 + 8) = 24$

1035.  $[3, 7, 9, 9] - 4$  个解:

1.  $(3 + 9) * (9 - 7) = 24$
2.  $(9 - 7) * (3 + 9) = 24$
3.  $(9 + 7 * 9) / 3 = 24$
4.  $3 * (7 + 9 / 9) = 24$

1036.  $[3, 7, 9, 10] - 3$  个解:

1.  $7 + 3 * 9 - 10 = 24$
2.  $3 * (7 + 10 - 9) = 24$
3.  $9 * (10 - 7) - 3 = 24$

1037.  $[3, 7, 9, 11] - 3$  个解:

1.  $(3 - 9) * (7 - 11) = 24$
2.  $(9 - 3) * (11 - 7) = 24$
3.  $7 + 9 + 11 - 3 = 24$

1038.  $[3, 7, 9, 12] - 6$  个解:

1.  $9 * (7 - 3) - 12 = 24$
2.  $12 + 3 * 7 - 9 = 24$
3.  $9 - 3 * (7 - 12) = 24$
4.  $9 + 3 * (12 - 7) = 24$
5.  $3 - 7 * (9 - 12) = 24$
6.  $3 + 7 * (12 - 9) = 24$

1039.  $[3, 7, 9, 13] - 2$  个解:

1.  $7 * 9 - 3 * 13 = 24$
2.  $9 * (7 - 13 / 3) = 24$

1040.  $[3, 7, 10, 10] - 2$  个解:

1.  $7 + 10 + 10 - 3 = 24$
2.  $3 * (7 + 10 / 10) = 24$

1041. [3, 7, 10, 11] - 3 个解:  
 1.  $(7 - 10) * (3 - 11) = 24$   
 2.  $(10 - 7) * (11 - 3) = 24$   
 3.  $3 * (7 + 11 - 10) = 24$
1042. [3, 7, 10, 12] - 无解
1043. [3, 7, 10, 13] - 4 个解:  
 1.  $13 + 3 * 7 - 10 = 24$   
 2.  $7 + 3 * 10 - 13 = 24$   
 3.  $3 - 7 * (10 - 13) = 24$   
 4.  $3 + 7 * (13 - 10) = 24$
1044. [3, 7, 11, 11] - 1 个解:  
 1.  $3 * (7 + 11 / 11) = 24$
1045. [3, 7, 11, 12] - 4 个解:  
 1.  $12 * (3 + 11) / 7 = 24$   
 2.  $12 - 3 * (7 - 11) = 24$   
 3.  $12 + 3 * (11 - 7) = 24$   
 4.  $3 * (7 + 12 - 11) = 24$
1046. [3, 7, 11, 13] - 无解
1047. [3, 7, 12, 12] - 3 个解:  
 1.  $12 * (12 - (3 + 7)) = 24$   
 2.  $(7 * 12 - 12) / 3 = 24$   
 3.  $3 * (7 + 12 / 12) = 24$
1048. [3, 7, 12, 13] - 3 个解:  
 1.  $7 + 13 + 12 / 3 = 24$   
 2.  $3 * (7 + 13 - 12) = 24$   
 3.  $12 * (13 - 7) / 3 = 24$
1049. [3, 7, 13, 13] - 1 个解:  
 1.  $3 * (7 + 13 / 13) = 24$
1050. [3, 8, 8, 8] - 5 个解:  
 1.  $8 * (3 + 8 - 8) = 24$   
 2.  $8 + 3 * 8 - 8 = 24$   
 3.  $3 * (8 + 8 - 8) = 24$   
 4.  $3 * 8 * 8 / 8 = 24$   
 5.  $(8 + 8 * 8) / 3 = 24$
1051. [3, 8, 8, 9] - 3 个解:  
 1.  $3 * 8 / (9 - 8) = 24$   
 2.  $3 * (9 - 8 / 8) = 24$   
 3.  $3 * 8 * (9 - 8) = 24$

1052. [3, 8, 8, 10] - 1 个解:  
 1.  $(8 * 10 - 8) / 3 = 24$
1053. [3, 8, 8, 11] - 1 个解:  
 1.  $8 + 8 + 11 - 3 = 24$
1054. [3, 8, 8, 12] - 2 个解:  
 1.  $12 * (3 - 8 / 8) = 24$   
 2.  $8 * 12 / 3 - 8 = 24$
1055. [3, 8, 8, 13] - 无解
1056. [3, 8, 9, 9] - 4 个解:  
 1.  $9 + 3 * 8 - 9 = 24$   
 2.  $8 * (3 + 9 - 9) = 24$   
 3.  $3 * (8 + 9 - 9) = 24$   
 4.  $3 * 8 * 9 / 9 = 24$
1057. [3, 8, 9, 10] - 4 个解:  
 1.  $3 * 8 / (10 - 9) = 24$   
 2.  $(3 + 9) * (10 - 8) = 24$   
 3.  $8 + 9 + 10 - 3 = 24$   
 4.  $3 * 8 * (10 - 9) = 24$
1058. [3, 8, 9, 11] - 2 个解:  
 1.  $8 + 3 * 9 - 11 = 24$   
 2.  $9 * (11 - 8) - 3 = 24$
1059. [3, 8, 9, 12] - 3 个解:  
 1.  $12 * (3 + 8 - 9) = 24$   
 2.  $(3 - 9) * (8 - 12) = 24$   
 3.  $(9 - 3) * (12 - 8) = 24$
1060. [3, 8, 9, 13] - 3 个解:  
 1.  $8 + 13 + 9 / 3 = 24$   
 2.  $9 - 3 * (8 - 13) = 24$   
 3.  $9 + 3 * (13 - 8) = 24$
1061. [3, 8, 10, 10] - 4 个解:  
 1.  $10 + 3 * 8 - 10 = 24$   
 2.  $8 * (3 + 10 - 10) = 24$   
 3.  $3 * (8 + 10 - 10) = 24$   
 4.  $3 * 8 * 10 / 10 = 24$
1062. [3, 8, 10, 11] - 2 个解:  
 1.  $3 * 8 / (11 - 10) = 24$   
 2.  $3 * 8 * (11 - 10) = 24$
1063. [3, 8, 10, 12] - 1 个解:

1.  $10 * 12 / (8 - 3) = 24$
1064. [3, 8, 10, 13] - 无解
1065. [3, 8, 11, 11] - 8 个解:  
 1.  $11 + 3 * 8 - 11 = 24$   
 2.  $8 * (3 + 11 - 11) = 24$   
 3.  $(3 - 11) * (8 - 11) = 24$   
 4.  $(11 - 3) * (11 - 8) = 24$   
 5.  $3 * (8 + 11 - 11) = 24$   
 6.  $(8 - 11) * (3 - 11) = 24$   
 7.  $(11 - 8) * (11 - 3) = 24$   
 8.  $3 * 8 * 11 / 11 = 24$
1066. [3, 8, 11, 12] - 2 个解:  
 1.  $3 * 8 / (12 - 11) = 24$   
 2.  $3 * 8 * (12 - 11) = 24$
1067. [3, 8, 11, 13] - 无解
1068. [3, 8, 12, 12] - 7 个解:  
 1.  $12 + 3 * 8 - 12 = 24$   
 2.  $8 * (3 + 12 - 12) = 24$   
 3.  $8 + 12 + 12 / 3 = 24$   
 4.  $3 * (8 + 12 - 12) = 24$   
 5.  $12 - 3 * (8 - 12) = 24$   
 6.  $12 + 3 * (12 - 8) = 24$   
 7.  $3 * 8 * 12 / 12 = 24$
1069. [3, 8, 12, 13] - 4 个解:  
 1.  $12 * (13 - (3 + 8)) = 24$   
 2.  $3 * 8 / (13 - 12) = 24$   
 3.  $12 * (3 + 13) / 8 = 24$   
 4.  $3 * 8 * (13 - 12) = 24$
1070. [3, 8, 13, 13] - 4 个解:  
 1.  $13 + 3 * 8 - 13 = 24$   
 2.  $8 * (3 + 13 - 13) = 24$   
 3.  $3 * (8 + 13 - 13) = 24$   
 4.  $3 * 8 * 13 / 13 = 24$
1071. [3, 9, 9, 9] - 3 个解:  
 1.  $(9 * 9 - 9) / 3 = 24$   
 2.  $3 * (9 - 9 / 9) = 24$   
 3.  $9 + 9 + 9 - 3 = 24$
1072. [3, 9, 9, 10] - 1 个解:  
 1.  $3 * (9 + 9 - 10) = 24$

1073.  $[3, 9, 9, 11] - 2$  个解:

1.  $(3 + 9) * (11 - 9) = 24$
2.  $9 * 11 / 3 - 9 = 24$

1074.  $[3, 9, 9, 12] - 4$  个解:

1.  $9 + 3 * 9 - 12 = 24$
2.  $9 + 12 + 9 / 3 = 24$
3.  $12 * (3 - 9 / 9) = 24$
4.  $9 * (12 - 9) - 3 = 24$

1075.  $[3, 9, 9, 13] - 2$  个解:

1.  $(3 - 9) * (9 - 13) = 24$
2.  $(9 - 3) * (13 - 9) = 24$

1076.  $[3, 9, 10, 10] - 1$  个解:

1.  $3 * (9 - 10 / 10) = 24$

1077.  $[3, 9, 10, 11] - 2$  个解:

1.  $10 + 11 + 9 / 3 = 24$
2.  $3 * (9 + 10 - 11) = 24$

1078.  $[3, 9, 10, 12] - 2$  个解:

1.  $(3 + 9) * (12 - 10) = 24$
2.  $12 * (3 + 9 - 10) = 24$

1079.  $[3, 9, 10, 13] - 2$  个解:

1.  $10 + 3 * 9 - 13 = 24$
2.  $9 * (13 - 10) - 3 = 24$

1080.  $[3, 9, 11, 11] - 2$  个解:

1.  $11 * (3 - 9 / 11) = 24$
2.  $3 * (9 - 11 / 11) = 24$

1081.  $[3, 9, 11, 12] - 4$  个解:

1.  $(3 - 11) * (9 - 12) = 24$
2.  $(11 - 3) * (12 - 9) = 24$
3.  $3 * (9 + 11 - 12) = 24$
4.  $9 + 11 + 12 / 3 = 24$

1082.  $[3, 9, 11, 13] - 1$  个解:

1.  $(3 + 9) * (13 - 11) = 24$

1083.  $[3, 9, 12, 12] - 3$  个解:

1.  $12 * 12 / (9 - 3) = 24$
2.  $9 * 12 / 3 - 12 = 24$
3.  $3 * (9 - 12 / 12) = 24$

1084.  $[3, 9, 12, 13] - 3$  个解:

1.  $3 * (9 + 12 - 13) = 24$

$$2. 12 - 3 * (9 - 13) = 24$$

$$3. 12 + 3 * (13 - 9) = 24$$

1085.  $[3, 9, 13, 13] - 1$  个解:

$$1. 3 * (9 - 13 / 13) = 24$$

1086.  $[3, 10, 10, 10] -$  无解

1087.  $[3, 10, 10, 11] -$  无解

1088.  $[3, 10, 10, 12] - 3$  个解:

1.  $3 * (10 + 10 - 12) = 24$
2.  $12 * (3 - 10 / 10) = 24$
3.  $10 + 10 + 12 / 3 = 24$

1089.  $[3, 10, 10, 13] -$  无解

1090.  $[3, 10, 11, 11] -$  无解

1091.  $[3, 10, 11, 12] - 1$  个解:

$$1. 12 * (3 + 10 - 11) = 24$$

1092.  $[3, 10, 11, 13] - 3$  个解:

1.  $(3 - 11) * (10 - 13) = 24$
2.  $(11 - 3) * (13 - 10) = 24$
3.  $3 * (10 + 11 - 13) = 24$

1093.  $[3, 10, 12, 12] -$  无解

1094.  $[3, 10, 12, 13] -$  无解

1095.  $[3, 10, 13, 13] -$  无解

1096.  $[3, 11, 11, 11] -$  无解

1097.  $[3, 11, 11, 12] - 1$  个解:

$$1. 12 * (3 - 11 / 11) = 24$$

1098.  $[3, 11, 11, 13] -$  无解

1099.  $[3, 11, 12, 12] - 1$  个解:

$$1. 12 * (3 + 11 - 12) = 24$$

1100.  $[3, 11, 12, 13] -$  无解

1101.  $[3, 11, 13, 13] -$  无解

1102.  $[3, 12, 12, 12] - 1$  个解:

$$1. 12 * (3 - 12 / 12) = 24$$

1103.  $[3, 12, 12, 13] - 1$  个解:

$$1. 12 * (3 + 12 - 13) = 24$$

1104.  $[3, 12, 13, 13] - 1$  个解:

$$1. 12 * (3 - 13 / 13) = 24$$

1105.  $[3, 13, 13, 13] -$  无解

1106.  $[4, 4, 4, 4] - 1$  个解:

$$1. 4 + 4 + 4 * 4 = 24$$

1107.  $[4, 4, 4, 5] - 1$  个解:

$$1. 4 * (5 + 4 / 4) = 24$$

1108.  $[4, 4, 4, 6] - 4$  个解:

1.  $6 * (4 + 4 - 4) = 24$
2.  $4 * (4 + 6 - 4) = 24$
3.  $4 + 4 * 6 - 4 = 24$
4.  $4 * 4 * 6 / 4 = 24$

1109.  $[4, 4, 4, 7] - 2$  个解:

1.  $(4 + 4) * (7 - 4) = 24$
2.  $4 * (7 - 4 / 4) = 24$

1110.  $[4, 4, 4, 8] - 4$  个解:

1.  $4 * 8 - (4 + 4) = 24$
2.  $4 * (4 + 4) - 8 = 24$
3.  $8 * (4 - 4 / 4) = 24$
4.  $4 * (4 + 8 / 4) = 24$

1111.  $[4, 4, 4, 9] - 2$  个解:

1.  $4 - 4 * (4 - 9) = 24$
2.  $4 + 4 * (9 - 4) = 24$

1112.  $[4, 4, 4, 10] - 2$  个解:

1.  $4 * 10 - 4 * 4 = 24$
2.  $4 * (4 * 4 - 10) = 24$

1113.  $[4, 4, 4, 11] - 1$  个解:

$$1. 4 * (11 - 4) - 4 = 24$$

1114.  $[4, 4, 4, 12] - 3$  个解:

1.  $12 * (4 + 4) / 4 = 24$
2.  $12 + 4 * 4 - 4 = 24$
3.  $4 + 4 + 4 + 12 = 24$

1115.  $[4, 4, 4, 13] -$  无解

1116.  $[4, 4, 5, 5] - 3$  个解:

1.  $5 * 5 - 4 / 4 = 24$
2.  $5 * (4 + 4 / 5) = 24$
3.  $4 * (5 + 5 - 4) = 24$

1117.  $[4, 4, 5, 6] - 3$  个解:

1.  $6 * (5 - 4 / 4) = 24$
2.  $4 * 6 / (5 - 4) = 24$
3.  $4 * 6 * (5 - 4) = 24$

1118.  $[4, 4, 5, 7] - 1$  个解:

1.  $4 * (4 + 7 - 5) = 24$

1119.  $[4, 4, 5, 8] - 6$  个解:

1.  $(4 + 4) * (8 - 5) = 24$
2.  $8 * (4 + 4 - 5) = 24$
3.  $5 * 8 - 4 * 4 = 24$
4.  $8 + 4 * 5 - 4 = 24$
5.  $4 - 5 * (4 - 8) = 24$
6.  $4 + 5 * (8 - 4) = 24$

1120.  $[4, 4, 5, 9] -$  无解

1121.  $[4, 4, 5, 10] - 3$  个解:

1.  $4 - 4 * (5 - 10) = 24$
2.  $4 + 4 * (10 - 5) = 24$
3.  $4 * (4 + 10 / 5) = 24$

1122.  $[4, 4, 5, 11] - 2$  个解:

1.  $4 * 11 - 4 * 5 = 24$
2.  $4 + 4 + 5 + 11 = 24$

1123.  $[4, 4, 5, 12] - 2$  个解:

1.  $4 * (4 + 5) - 12 = 24$
2.  $4 * (12 - 5) - 4 = 24$

1124.  $[4, 4, 5, 13] - 1$  个解:

1.  $13 + 4 * 4 - 5 = 24$

1125.  $[4, 4, 6, 6] -$  无解

1126.  $[4, 4, 6, 7] -$  无解

1127.  $[4, 4, 6, 8] - 2$  个解:

1.  $(6 - 4) * (4 + 8) = 24$
2.  $4 * (4 + 8 - 6) = 24$

1128.  $[4, 4, 6, 9] - 2$  个解:

1.  $(4 + 4) * (9 - 6) = 24$

$$2. 4 * 4 * 9 / 6 = 24$$

1129.  $[4, 4, 6, 10] - 3$  个解:

1.  $4 - 10 * (4 - 6) = 24$
2.  $4 + 10 * (6 - 4) = 24$
3.  $4 + 4 + 6 + 10 = 24$

1130.  $[4, 4, 6, 11] - 2$  个解:

1.  $4 - 4 * (6 - 11) = 24$
2.  $4 + 4 * (11 - 6) = 24$

1131.  $[4, 4, 6, 12] - 7$  个解:

1.  $12 * (4 + 4 - 6) = 24$
2.  $6 * (12 - (4 + 4)) = 24$
3.  $6 * (4 * 4 - 12) = 24$
4.  $4 * 12 / (6 - 4) = 24$
5.  $4 * 12 - 4 * 6 = 24$
6.  $6 * (4 + 12) / 4 = 24$
7.  $4 * (4 + 12 / 6) = 24$

1132.  $[4, 4, 6, 13] - 1$  个解:

1.  $4 * (13 - 6) - 4 = 24$

1133.  $[4, 4, 7, 7] - 1$  个解:

1.  $7 * (4 - 4 / 7) = 24$

1134.  $[4, 4, 7, 8] - 2$  个解:

1.  $4 + 4 * 7 - 8 = 24$
2.  $7 * (8 - 4) - 4 = 24$

1135.  $[4, 4, 7, 9] - 2$  个解:

1.  $4 * (4 + 9 - 7) = 24$
2.  $4 + 4 + 7 + 9 = 24$

1136.  $[4, 4, 7, 10] - 1$  个解:

1.  $(4 + 4) * (10 - 7) = 24$

1137.  $[4, 4, 7, 11] -$  无解

1138.  $[4, 4, 7, 12] - 6$  个解:

1.  $(4 - 7) * (4 - 12) = 24$
2.  $12 - 4 * (4 - 7) = 24$
3.  $(7 - 4) * (12 - 4) = 24$
4.  $12 + 4 * (7 - 4) = 24$
5.  $4 - 4 * (7 - 12) = 24$
6.  $4 + 4 * (12 - 7) = 24$

1139.  $[4, 4, 7, 13] - 1$  个解:

1.  $4 * 13 - 4 * 7 = 24$

1140.  $[4, 4, 8, 8] - 5$  个解:

1.  $8 * (4 + 8) / 4 = 24$
2.  $8 - 4 * (4 - 8) = 24$
3.  $8 + 4 * (8 - 4) = 24$
4.  $4 * (8 - 8 / 4) = 24$
5.  $4 + 4 + 8 + 8 = 24$

1141.  $[4, 4, 8, 9] - 1$  个解:

1.  $4 * 9 - (4 + 8) = 24$

1142.  $[4, 4, 8, 10] - 4$  个解:

1.  $(4 - 8) * (4 - 10) = 24$
2.  $(8 - 4) * (10 - 4) = 24$
3.  $4 * (4 + 10 - 8) = 24$
4.  $4 + 8 * 10 / 4 = 24$

1143.  $[4, 4, 8, 11] - 2$  个解:

1.  $(4 + 4) * (11 - 8) = 24$
2.  $8 * (11 - (4 + 4)) = 24$

1144.  $[4, 4, 8, 12] - 4$  个解:

1.  $4 + 4 * 8 - 12 = 24$
2.  $12 * (4 - 8 / 4) = 24$
3.  $4 * (12 - 4) - 8 = 24$
4.  $4 * 4 * 12 / 8 = 24$

1145.  $[4, 4, 8, 13] - 3$  个解:

1.  $8 * (4 * 4 - 13) = 24$
2.  $4 - 4 * (8 - 13) = 24$
3.  $4 + 4 * (13 - 8) = 24$

1146.  $[4, 4, 9, 9] -$  无解

1147.  $[4, 4, 9, 10] -$  无解

1148.  $[4, 4, 9, 11] - 1$  个解:

1.  $4 * (4 + 11 - 9) = 24$

1149.  $[4, 4, 9, 12] - 2$  个解:

1.  $(4 + 4) * (12 - 9) = 24$
2.  $4 * (9 - 12 / 4) = 24$

1150.  $[4, 4, 9, 13] -$  无解

1151.  $[4, 4, 10, 10] - 1$  个解:

1.  $(10 * 10 - 4) / 4 = 24$

1152.  $[4, 4, 10, 11] -$  无解

1153.  $[4, 4, 10, 12]$  - 3 个解:  
1.  $12 * (10 - (4 + 4)) = 24$   
2.  $4 * 10 - (4 + 12) = 24$   
3.  $4 * (4 + 12 - 10) = 24$

1154.  $[4, 4, 10, 13]$  - 2 个解:  
1.  $(4 + 4) * (13 - 10) = 24$   
2.  $10 + 13 + 4 / 4 = 24$

1155.  $[4, 4, 11, 11]$  - 无解

1156.  $[4, 4, 11, 12]$  - 1 个解:  
1.  $11 + 12 + 4 / 4 = 24$

1157.  $[4, 4, 11, 13]$  - 5 个解:  
1.  $13 + 4 * 11 / 4 = 24$   
2.  $4 * (4 + 13 - 11) = 24$   
3.  $11 + 4 * 13 / 4 = 24$   
4.  $4 + 11 + 13 - 4 = 24$   
5.  $4 * (11 + 13) / 4 = 24$

1158.  $[4, 4, 12, 12]$  - 4 个解:  
1.  $12 * (12 - 4) / 4 = 24$   
2.  $12 + 4 * 12 / 4 = 24$   
3.  $4 + 12 + 12 - 4 = 24$   
4.  $4 * (12 + 12) / 4 = 24$

1159.  $[4, 4, 12, 13]$  - 2 个解:  
1.  $12 + 13 - 4 / 4 = 24$   
2.  $4 * (13 - 4) - 12 = 24$

1160.  $[4, 4, 13, 13]$  - 无解

1161.  $[4, 5, 5, 5]$  - 2 个解:  
1.  $4 + 5 * 5 - 5 = 24$   
2.  $4 * (5 + 5 / 5) = 24$

1162.  $[4, 5, 5, 6]$  - 4 个解:  
1.  $6 * (4 + 5 - 5) = 24$   
2.  $5 + 4 * 6 - 5 = 24$   
3.  $4 * (5 + 6 - 5) = 24$   
4.  $4 * 5 * 6 / 5 = 24$

1163.  $[4, 5, 5, 7]$  - 1 个解:  
1.  $4 * (7 - 5 / 5) = 24$

1164.  $[4, 5, 5, 8]$  - 1 个解:  
1.  $8 * (4 - 5 / 5) = 24$

1165.  $[4, 5, 5, 9]$  - 3 个解:  
1.  $9 + 4 * 5 - 5 = 24$   
2.  $4 - 5 * (5 - 9) = 24$   
3.  $4 + 5 * (9 - 5) = 24$

1166.  $[4, 5, 5, 10]$  - 1 个解:  
1.  $4 + 5 + 5 + 10 = 24$

1167.  $[4, 5, 5, 11]$  - 无解

1168.  $[4, 5, 5, 12]$  - 无解

1169.  $[4, 5, 5, 13]$  - 无解

1170.  $[4, 5, 6, 6]$  - 3 个解:  
1.  $4 * 6 / (6 - 5) = 24$   
2.  $4 * 6 * (6 - 5) = 24$   
3.  $4 * (5 + 6 / 6) = 24$

1171.  $[4, 5, 6, 7]$  - 2 个解:  
1.  $(6 - 4) * (5 + 7) = 24$   
2.  $4 * (5 + 7 - 6) = 24$

1172.  $[4, 5, 6, 8]$  - 1 个解:  
1.  $8 * (4 + 5 - 6) = 24$

1173.  $[4, 5, 6, 9]$  - 1 个解:  
1.  $4 + 5 + 6 + 9 = 24$

1174.  $[4, 5, 6, 10]$  - 5 个解:  
1.  $10 + 4 * 5 - 6 = 24$   
2.  $4 + 5 * 6 - 10 = 24$   
3.  $5 * (10 - 4) - 6 = 24$   
4.  $4 - 5 * (6 - 10) = 24$   
5.  $4 + 5 * (10 - 6) = 24$

1175.  $[4, 5, 6, 11]$  - 1 个解:  
1.  $6 * (5 + 11) / 4 = 24$

1176.  $[4, 5, 6, 12]$  - 1 个解:  
1.  $12 * (4 + 6) / 5 = 24$

1177.  $[4, 5, 6, 13]$  - 1 个解:  
1.  $6 * (13 - (4 + 5)) = 24$

1178.  $[4, 5, 7, 7]$  - 2 个解:  
1.  $5 * 7 - (4 + 7) = 24$   
2.  $4 * (5 + 7 / 7) = 24$

1179.  $[4, 5, 7, 8]$  - 4 个解:  
1.  $8 * (5 + 7) / 4 = 24$   
2.  $(7 - 5) * (4 + 8) = 24$   
3.  $4 * (5 + 8 - 7) = 24$   
4.  $4 + 5 + 7 + 8 = 24$

1180.  $[4, 5, 7, 9]$  - 5 个解:  
1.  $9 - 5 * (4 - 7) = 24$   
2.  $9 + 5 * (7 - 4) = 24$   
3.  $5 + 4 * 7 - 9 = 24$   
4.  $4 * 9 - (5 + 7) = 24$   
5.  $7 * (9 - 5) - 4 = 24$

1181.  $[4, 5, 7, 10]$  - 2 个解:  
1.  $4 - 10 * (5 - 7) = 24$   
2.  $4 + 10 * (7 - 5) = 24$

1182.  $[4, 5, 7, 11]$  - 3 个解:  
1.  $11 + 4 * 5 - 7 = 24$   
2.  $4 - 5 * (7 - 11) = 24$   
3.  $4 + 5 * (11 - 7) = 24$

1183.  $[4, 5, 7, 12]$  - 2 个解:  
1.  $12 * (4 + 5 - 7) = 24$   
2.  $4 * 12 / (7 - 5) = 24$

1184.  $[4, 5, 7, 13]$  - 3 个解:  
1.  $(4 - 7) * (5 - 13) = 24$   
2.  $(7 - 4) * (13 - 5) = 24$   
3.  $(5 + 7 * 13) / 4 = 24$

1185.  $[4, 5, 8, 8]$  - 2 个解:  
1.  $8 * (5 - 8 / 4) = 24$   
2.  $4 * (5 + 8 / 8) = 24$

1186.  $[4, 5, 8, 9]$  - 3 个解:  
1.  $4 * (5 + 9 - 8) = 24$   
2.  $8 - 4 * (5 - 9) = 24$   
3.  $8 + 4 * (9 - 5) = 24$

1187.  $[4, 5, 8, 10]$  - 4 个解:  
1.  $10 * (4 + 8) / 5 = 24$   
2.  $10 * (4 - 8 / 5) = 24$   
3.  $4 * (8 - 10 / 5) = 24$   
4.  $5 * (4 + 8 / 10) = 24$

1188.  $[4, 5, 8, 11]$  - 3 个解:  
1.  $(4 - 8) * (5 - 11) = 24$



2.  $(8 - 4) * (11 - 5) = 24$   
 3.  $8 * (4 + 11) / 5 = 24$
1189.  $[4, 5, 8, 12]$  - 9 个解:  
 1.  $8 * (12 - (4 + 5)) = 24$   
 2.  $12 + 4 * 5 - 8 = 24$   
 3.  $(5 - 8) * (4 - 12) = 24$   
 4.  $12 - 4 * (5 - 8) = 24$   
 5.  $(8 - 5) * (12 - 4) = 24$   
 6.  $12 + 4 * (8 - 5) = 24$   
 7.  $5 * 8 - (4 + 12) = 24$   
 8.  $4 - 5 * (8 - 12) = 24$   
 9.  $4 + 5 * (12 - 8) = 24$
1190.  $[4, 5, 8, 13]$  - 2 个解:  
 1.  $5 + 4 * 8 - 13 = 24$   
 2.  $4 * (13 - 5) - 8 = 24$
1191.  $[4, 5, 9, 9]$  - 1 个解:  
 1.  $4 * (5 + 9 / 9) = 24$
1192.  $[4, 5, 9, 10]$  - 3 个解:  
 1.  $(5 - 9) * (4 - 10) = 24$   
 2.  $(9 - 5) * (10 - 4) = 24$   
 3.  $4 * (5 + 10 - 9) = 24$
1193.  $[4, 5, 9, 11]$  - 无解
1194.  $[4, 5, 9, 12]$  - 2 个解:  
 1.  $5 * 12 - 4 * 9 = 24$   
 2.  $9 + 5 * 12 / 4 = 24$
1195.  $[4, 5, 9, 13]$  - 3 个解:  
 1.  $13 + 4 * 5 - 9 = 24$   
 2.  $4 - 5 * (9 - 13) = 24$   
 3.  $4 + 5 * (13 - 9) = 24$
1196.  $[4, 5, 10, 10]$  - 2 个解:  
 1.  $4 + 10 * 10 / 5 = 24$   
 2.  $4 * (5 + 10 / 10) = 24$
1197.  $[4, 5, 10, 11]$  - 2 个解:  
 1.  $4 * 10 - (5 + 11) = 24$   
 2.  $4 * (5 + 11 - 10) = 24$
1198.  $[4, 5, 10, 12]$  - 2 个解:  
 1.  $12 * (4 - 10 / 5) = 24$   
 2.  $4 * 5 * 12 / 10 = 24$

1199.  $[4, 5, 10, 13]$  - 1 个解:  
 1.  $5 + 10 + 13 - 4 = 24$
1200.  $[4, 5, 11, 11]$  - 2 个解:  
 1.  $5 * (11 - 4) - 11 = 24$   
 2.  $4 * (5 + 11 / 11) = 24$
1201.  $[4, 5, 11, 12]$  - 3 个解:  
 1.  $12 * (11 - (4 + 5)) = 24$   
 2.  $4 * (5 + 12 - 11) = 24$   
 3.  $5 + 11 + 12 - 4 = 24$
1202.  $[4, 5, 11, 13]$  - 10 个解:  
 1.  $13 - 11 * (4 - 5) = 24$   
 2.  $13 - 11 / (4 - 5) = 24$   
 3.  $11 - 13 * (4 - 5) = 24$   
 4.  $11 - 13 / (4 - 5) = 24$   
 5.  $(5 - 4) * (11 + 13) = 24$   
 6.  $(11 + 13) / (5 - 4) = 24$   
 7.  $13 + 11 * (5 - 4) = 24$   
 8.  $13 + 11 / (5 - 4) = 24$   
 9.  $11 + 13 * (5 - 4) = 24$   
 10.  $11 + 13 / (5 - 4) = 24$
1203.  $[4, 5, 12, 12]$  - 8 个解:  
 1.  $12 - 12 * (4 - 5) = 24$   
 2.  $12 - 12 / (4 - 5) = 24$   
 3.  $(5 - 4) * (12 + 12) = 24$   
 4.  $(12 + 12) / (5 - 4) = 24$   
 5.  $12 + 12 * (5 - 4) = 24$   
 6.  $12 + 12 / (5 - 4) = 24$   
 7.  $12 * (5 - 12 / 4) = 24$   
 8.  $4 * (5 + 12 / 12) = 24$
1204.  $[4, 5, 12, 13]$  - 3 个解:  
 1.  $4 * (5 + 13 - 12) = 24$   
 2.  $12 * (13 - 5) / 4 = 24$   
 3.  $4 + 12 + 13 - 5 = 24$
1205.  $[4, 5, 13, 13]$  - 1 个解:  
 1.  $4 * (5 + 13 / 13) = 24$
1206.  $[4, 6, 6, 6]$  - 6 个解:  
 1.  $6 * (4 + 6 - 6) = 24$   
 2.  $(6 - 4) * (6 + 6) = 24$   
 3.  $6 + 4 * 6 - 6 = 24$   
 4.  $(6 + 6) * (6 - 4) = 24$   
 5.  $4 * (6 + 6 - 6) = 24$   
 6.  $4 * 6 * 6 / 6 = 24$

1207.  $[4, 6, 6, 7]$  - 5 个解:  
 1.  $4 * 6 / (7 - 6) = 24$   
 2.  $4 * (7 - 6 / 6) = 24$   
 3.  $6 - 6 * (4 - 7) = 24$   
 4.  $6 + 6 * (7 - 4) = 24$   
 5.  $4 * 6 * (7 - 6) = 24$
1208.  $[4, 6, 6, 8]$  - 7 个解:  
 1.  $6 * 8 / (6 - 4) = 24$   
 2.  $6 * 8 - 4 * 6 = 24$   
 3.  $8 * (6 + 6) / 4 = 24$   
 4.  $6 * 6 - (4 + 8) = 24$   
 5.  $8 * (4 - 6 / 6) = 24$   
 6.  $6 * (6 - 8 / 4) = 24$   
 7.  $4 + 6 + 6 + 8 = 24$
1209.  $[4, 6, 6, 9]$  - 4 个解:  
 1.  $6 - 9 * (4 - 6) = 24$   
 2.  $6 + 9 * (6 - 4) = 24$   
 3.  $4 * 9 - (6 + 6) = 24$   
 4.  $6 * (9 - 4) - 6 = 24$
1210.  $[4, 6, 6, 10]$  - 1 个解:  
 1.  $6 * (6 + 10) / 4 = 24$
1211.  $[4, 6, 6, 11]$  - 无解
1212.  $[4, 6, 6, 12]$  - 3 个解:  
 1.  $12 - 6 * (4 - 6) = 24$   
 2.  $12 + 6 * (6 - 4) = 24$   
 3.  $6 + 6 * 12 / 4 = 24$
1213.  $[4, 6, 6, 13]$  - 无解
1214.  $[4, 6, 7, 7]$  - 5 个解:  
 1.  $7 + 4 * 6 - 7 = 24$   
 2.  $6 * (4 + 7 - 7) = 24$   
 3.  $4 * (6 + 7 - 7) = 24$   
 4.  $4 * 6 * 7 / 7 = 24$   
 5.  $4 + 6 + 7 + 7 = 24$
1215.  $[4, 6, 7, 8]$  - 3 个解:  
 1.  $8 * (4 + 6 - 7) = 24$   
 2.  $4 * 6 / (8 - 7) = 24$   
 3.  $4 * 6 * (8 - 7) = 24$
1216.  $[4, 6, 7, 9]$  - 1 个解:  
 1.  $6 * (7 + 9) / 4 = 24$

1217.  $[4, 6, 7, 10] - 5$  个解:

1.  $10 - 7 * (4 - 6) = 24$
2.  $10 + 7 * (6 - 4) = 24$
3.  $10 * (7 - 4) - 6 = 24$
4.  $6 + 4 * 7 - 10 = 24$
5.  $7 * (10 - 6) - 4 = 24$

1218.  $[4, 6, 7, 11] -$  无解

1219.  $[4, 6, 7, 12] - 2$  个解:

1.  $6 * 12 / (7 - 4) = 24$
2.  $6 * (7 - 12 / 4) = 24$

1220.  $[4, 6, 7, 13] -$  无解

1221.  $[4, 6, 8, 8] - 9$  个解:

1.  $8 - 8 * (4 - 6) = 24$
2.  $8 + 8 * (6 - 4) = 24$
3.  $8 + 4 * 6 - 8 = 24$
4.  $(4 + 8) * (8 - 6) = 24$
5.  $6 * (4 + 8 - 8) = 24$
6.  $4 * (6 + 8 - 8) = 24$
7.  $(8 - 6) * (4 + 8) = 24$
8.  $4 * 6 * 8 / 8 = 24$
9.  $6 * (8 + 8) / 4 = 24$

1222.  $[4, 6, 8, 9] - 4$  个解:

1.  $4 * 6 / (9 - 8) = 24$
2.  $9 * (4 - 8 / 6) = 24$
3.  $4 * 6 * (9 - 8) = 24$
4.  $6 + 8 * 9 / 4 = 24$

1223.  $[4, 6, 8, 10] - 4$  个解:

1.  $4 - 10 * (6 - 8) = 24$
2.  $4 + 10 * (8 - 6) = 24$
3.  $8 - 4 * (6 - 10) = 24$
4.  $8 + 4 * (10 - 6) = 24$

1224.  $[4, 6, 8, 11] -$  无解

1225.  $[4, 6, 8, 12] - 8$  个解:

1.  $12 * (4 + 6 - 8) = 24$
2.  $12 * (4 + 8) / 6 = 24$
3.  $(4 - 8) * (6 - 12) = 24$
4.  $(8 - 4) * (12 - 6) = 24$
5.  $4 * 12 / (8 - 6) = 24$
6.  $12 + 6 * 8 / 4 = 24$
7.  $8 * (6 - 12 / 4) = 24$

$$8. 4 * (8 - 12 / 6) = 24$$

1226.  $[4, 6, 8, 13] - 1$  个解:

1.  $8 * (13 - (4 + 6)) = 24$

1227.  $[4, 6, 9, 9] - 4$  个解:

1.  $9 + 4 * 6 - 9 = 24$
2.  $6 * (4 + 9 - 9) = 24$
3.  $4 * (6 + 9 - 9) = 24$
4.  $4 * 6 * 9 / 9 = 24$

1228.  $[4, 6, 9, 10] - 5$  个解:

1.  $4 * 6 / (10 - 9) = 24$
2.  $6 * 10 - 4 * 9 = 24$
3.  $9 + 6 * 10 / 4 = 24$
4.  $4 * 6 * (10 - 9) = 24$
5.  $(6 + 9 * 10) / 4 = 24$

1229.  $[4, 6, 9, 11] -$  无解

1230.  $[4, 6, 9, 12] - 5$  个解:

1.  $(6 - 9) * (4 - 12) = 24$
2.  $12 - 4 * (6 - 9) = 24$
3.  $(9 - 6) * (12 - 4) = 24$
4.  $12 + 4 * (9 - 6) = 24$
5.  $9 * (4 + 12) / 6 = 24$

1231.  $[4, 6, 9, 13] - 1$  个解:

1.  $6 + 9 + 13 - 4 = 24$

1232.  $[4, 6, 10, 10] - 9$  个解:

1.  $10 + 4 * 6 - 10 = 24$
2.  $6 * (4 + 10 - 10) = 24$
3.  $(4 - 10) * (6 - 10) = 24$
4.  $(10 - 4) * (10 - 6) = 24$
5.  $4 * 10 - (6 + 10) = 24$
6.  $4 * (6 + 10 - 10) = 24$
7.  $(6 - 10) * (4 - 10) = 24$
8.  $(10 - 6) * (10 - 4) = 24$
9.  $4 * 6 * 10 / 10 = 24$

1233.  $[4, 6, 10, 11] - 2$  个解:

1.  $4 * 6 / (11 - 10) = 24$
2.  $4 * 6 * (11 - 10) = 24$

1234.  $[4, 6, 10, 12] - 4$  个解:

1.  $6 * (10 - 4) - 12 = 24$
2.  $6 + 10 + 12 - 4 = 24$
3.  $10 * 12 / 4 - 6 = 24$

$$4. 4 + 10 * 12 / 6 = 24$$

1235.  $[4, 6, 10, 13] -$  无解

1236.  $[4, 6, 11, 11] - 5$  个解:

1.  $11 + 4 * 6 - 11 = 24$
2.  $6 * (4 + 11 - 11) = 24$
3.  $4 * (6 + 11 - 11) = 24$
4.  $4 * 6 * 11 / 11 = 24$
5.  $6 + 11 + 11 - 4 = 24$

1237.  $[4, 6, 11, 12] - 2$  个解:

1.  $4 * 6 / (12 - 11) = 24$
2.  $4 * 6 * (12 - 11) = 24$

1238.  $[4, 6, 11, 13] -$  无解

1239.  $[4, 6, 12, 12] - 7$  个解:

1.  $12 * (12 - (4 + 6)) = 24$
2.  $12 + 4 * 6 - 12 = 24$
3.  $6 * (4 + 12 - 12) = 24$
4.  $6 * 12 - 4 * 12 = 24$
5.  $4 * (6 + 12 - 12) = 24$
6.  $4 * 6 * 12 / 12 = 24$
7.  $12 * (4 - 12 / 6) = 24$

1240.  $[4, 6, 12, 13] - 2$  个解:

1.  $4 * 6 / (13 - 12) = 24$
2.  $4 * 6 * (13 - 12) = 24$

1241.  $[4, 6, 13, 13] - 5$  个解:

1.  $13 + 4 * 6 - 13 = 24$
2.  $6 * (4 + 13 - 13) = 24$
3.  $4 * (6 + 13 - 13) = 24$
4.  $4 * 6 * 13 / 13 = 24$
5.  $4 + 13 + 13 - 6 = 24$

1242.  $[4, 7, 7, 7] - 1$  个解:

1.  $4 * (7 - 7 / 7) = 24$

1243.  $[4, 7, 7, 8] - 2$  个解:

1.  $4 * (7 + 7 - 8) = 24$
2.  $8 * (4 - 7 / 7) = 24$

1244.  $[4, 7, 7, 9] -$  无解

1245.  $[4, 7, 7, 10] -$  无解

1246.  $[4, 7, 7, 11] - 2$  个解:

1.  $7 + 4 * 7 - 11 = 24$
  2.  $7 * (11 - 7) - 4 = 24$
1247.  $[4, 7, 7, 12]$  - 无解
1248.  $[4, 7, 7, 13]$  - 无解
1249.  $[4, 7, 8, 8]$  - 3 个解:
1.  $8 * (4 + 7 - 8) = 24$
  2.  $7 * 8 - 4 * 8 = 24$
  3.  $4 * (7 - 8 / 8) = 24$
1250.  $[4, 7, 8, 9]$  - 3 个解:
1.  $8 * 9 / (7 - 4) = 24$
  2.  $(4 + 8) * (9 - 7) = 24$
  3.  $4 * (7 + 8 - 9) = 24$
1251.  $[4, 7, 8, 10]$  - 1 个解:
1.  $10 + 7 * 8 / 4 = 24$
1252.  $[4, 7, 8, 11]$  - 2 个解:
1.  $8 - 4 * (7 - 11) = 24$
  2.  $8 + 4 * (11 - 7) = 24$
1253.  $[4, 7, 8, 12]$  - 2 个解:
1.  $8 + 4 * 7 - 12 = 24$
  2.  $7 * (12 - 8) - 4 = 24$
1254.  $[4, 7, 8, 13]$  - 3 个解:
1.  $(4 - 8) * (7 - 13) = 24$
  2.  $(8 - 4) * (13 - 7) = 24$
  3.  $7 + 8 + 13 - 4 = 24$
1255.  $[4, 7, 9, 9]$  - 1 个解:
1.  $4 * (7 - 9 / 9) = 24$
1256.  $[4, 7, 9, 10]$  - 4 个解:
1.  $4 * 10 - (7 + 9) = 24$
  2.  $4 * (7 + 9 - 10) = 24$
  3.  $4 - 10 * (7 - 9) = 24$
  4.  $4 + 10 * (9 - 7) = 24$
1257.  $[4, 7, 9, 11]$  - 2 个解:
1.  $11 * (7 - 4) - 9 = 24$
  2.  $7 * (9 - 4) - 11 = 24$
1258.  $[4, 7, 9, 12]$  - 3 个解:
1.  $12 * (4 + 7 - 9) = 24$
  2.  $4 * 12 / (9 - 7) = 24$

3.  $7 + 9 + 12 - 4 = 24$
1259.  $[4, 7, 9, 13]$  - 2 个解:
1.  $9 + 4 * 7 - 13 = 24$
  2.  $7 * (13 - 9) - 4 = 24$
1260.  $[4, 7, 10, 10]$  - 1 个解:
1.  $4 * (7 - 10 / 10) = 24$
1261.  $[4, 7, 10, 11]$  - 4 个解:
1.  $(4 - 10) * (7 - 11) = 24$
  2.  $(10 - 4) * (11 - 7) = 24$
  3.  $4 * (7 + 10 - 11) = 24$
  4.  $7 + 10 + 11 - 4 = 24$
1262.  $[4, 7, 10, 12]$  - 5 个解:
1.  $12 * (4 + 10) / 7 = 24$
  2.  $(7 - 10) * (4 - 12) = 24$
  3.  $12 - 4 * (7 - 10) = 24$
  4.  $(10 - 7) * (12 - 4) = 24$
  5.  $12 + 4 * (10 - 7) = 24$
1263.  $[4, 7, 10, 13]$  - 无解
1264.  $[4, 7, 11, 11]$  - 1 个解:
1.  $4 * (7 - 11 / 11) = 24$
1265.  $[4, 7, 11, 12]$  - 1 个解:
1.  $4 * (7 + 11 - 12) = 24$
1266.  $[4, 7, 11, 13]$  - 1 个解:
1.  $4 * 11 - (7 + 13) = 24$
1267.  $[4, 7, 12, 12]$  - 3 个解:
1.  $12 * (7 - 4) - 12 = 24$
  2.  $(12 + 7 * 12) / 4 = 24$
  3.  $4 * (7 - 12 / 12) = 24$
1268.  $[4, 7, 12, 13]$  - 2 个解:
1.  $12 * (13 - (4 + 7)) = 24$
  2.  $4 * (7 + 12 - 13) = 24$
1269.  $[4, 7, 13, 13]$  - 1 个解:
1.  $4 * (7 - 13 / 13) = 24$
1270.  $[4, 8, 8, 8]$  - 3 个解:
1.  $8 * (8 - 4) - 8 = 24$
  2.  $8 + 8 * 8 / 4 = 24$
  3.  $8 * (4 - 8 / 8) = 24$

1271.  $[4, 8, 8, 9]$  - 1 个解:
1.  $8 * (4 + 8 - 9) = 24$
1272.  $[4, 8, 8, 10]$  - 4 个解:
1.  $(4 + 8) * (10 - 8) = 24$
  2.  $4 * 10 - (8 + 8) = 24$
  3.  $4 * (8 + 8 - 10) = 24$
  4.  $8 * 8 - 4 * 10 = 24$
1273.  $[4, 8, 8, 11]$  - 1 个解:
1.  $(8 + 8 * 11) / 4 = 24$
1274.  $[4, 8, 8, 12]$  - 4 个解:
1.  $8 * 12 / (8 - 4) = 24$
  2.  $8 - 4 * (8 - 12) = 24$
  3.  $8 + 4 * (12 - 8) = 24$
  4.  $8 + 8 + 12 - 4 = 24$
1275.  $[4, 8, 8, 13]$  - 1 个解:
1.  $(8 * 13 - 8) / 4 = 24$
1276.  $[4, 8, 9, 9]$  - 1 个解:
1.  $8 * (4 - 9 / 9) = 24$
1277.  $[4, 8, 9, 10]$  - 1 个解:
1.  $8 * (4 + 9 - 10) = 24$
1278.  $[4, 8, 9, 11]$  - 3 个解:
1.  $(4 + 8) * (11 - 9) = 24$
  2.  $4 * (8 + 9 - 11) = 24$
  3.  $8 + 9 + 11 - 4 = 24$
1279.  $[4, 8, 9, 12]$  - 3 个解:
1.  $9 * (8 - 4) - 12 = 24$
  2.  $8 * 9 - 4 * 12 = 24$
  3.  $4 * 8 * 9 / 12 = 24$
1280.  $[4, 8, 9, 13]$  - 3 个解:
1.  $9 + 13 + 8 / 4 = 24$
  2.  $8 - 4 * (9 - 13) = 24$
  3.  $8 + 4 * (13 - 9) = 24$
1281.  $[4, 8, 10, 10]$  - 4 个解:
1.  $4 - 10 * (8 - 10) = 24$
  2.  $4 + 10 * (10 - 8) = 24$
  3.  $8 + 10 + 10 - 4 = 24$
  4.  $8 * (4 - 10 / 10) = 24$

1282. [4, 8, 10, 11] - 1 个解:

1.  $8 * (4 + 10 - 11) = 24$

1283. [4, 8, 10, 12] - 7 个解:

1.  $(4 + 8) * (12 - 10) = 24$

2.  $12 * (4 + 8 - 10) = 24$

3.  $10 + 12 + 8 / 4 = 24$

4.  $(4 - 10) * (8 - 12) = 24$

5.  $(10 - 4) * (12 - 8) = 24$

6.  $4 * (8 + 10 - 12) = 24$

7.  $4 * 12 / (10 - 8) = 24$

1284. [4, 8, 10, 13] - 无解

1285. [4, 8, 11, 11] - 2 个解:

1.  $11 + 11 + 8 / 4 = 24$

2.  $8 * (4 - 11 / 11) = 24$

1286. [4, 8, 11, 12] - 6 个解:

1.  $8 * (4 + 11 - 12) = 24$

2.  $4 * 11 - (8 + 12) = 24$

3.  $(8 - 11) * (4 - 12) = 24$

4.  $12 - 4 * (8 - 11) = 24$

5.  $(11 - 8) * (12 - 4) = 24$

6.  $12 + 4 * (11 - 8) = 24$

1287. [4, 8, 11, 13] - 2 个解:

1.  $(4 + 8) * (13 - 11) = 24$

2.  $4 * (8 + 11 - 13) = 24$

1288. [4, 8, 12, 12] - 2 个解:

1.  $12 * (4 + 12) / 8 = 24$

2.  $8 * (4 - 12 / 12) = 24$

1289. [4, 8, 12, 13] - 2 个解:

1.  $8 * (4 + 12 - 13) = 24$

2.  $8 + 13 + 12 / 4 = 24$

1290. [4, 8, 13, 13] - 2 个解:

1.  $13 + 13 - 8 / 4 = 24$

2.  $8 * (4 - 13 / 13) = 24$

1291. [4, 9, 9, 9] - 无解

1292. [4, 9, 9, 10] - 1 个解:

1.  $9 + 9 + 10 - 4 = 24$

1293. [4, 9, 9, 11] - 无解

1294. [4, 9, 9, 12] - 2 个解:

1.  $4 * (9 + 9 - 12) = 24$

2.  $9 * (4 - 12 / 9) = 24$

1295. [4, 9, 9, 13] - 无解

1296. [4, 9, 10, 10] - 无解

1297. [4, 9, 10, 11] - 2 个解:

1.  $4 - 10 * (9 - 11) = 24$

2.  $4 + 10 * (11 - 9) = 24$

1298. [4, 9, 10, 12] - 1 个解:

1.  $10 * 12 / (9 - 4) = 24$

1299. [4, 9, 10, 13] - 3 个解:

1.  $(4 - 10) * (9 - 13) = 24$

2.  $(10 - 4) * (13 - 9) = 24$

3.  $4 * (9 + 10 - 13) = 24$

1300. [4, 9, 11, 11] - 1 个解:

1.  $4 * 11 - (9 + 11) = 24$

1301. [4, 9, 11, 12] - 3 个解:

1.  $12 * (4 + 9 - 11) = 24$

2.  $4 * 12 / (11 - 9) = 24$

3.  $11 * 12 / 4 - 9 = 24$

1302. [4, 9, 11, 13] - 无解

1303. [4, 9, 12, 12] - 8 个解:

1.  $(4 - 12) * (9 - 12) = 24$

2.  $(12 - 4) * (12 - 9) = 24$

3.  $9 + 12 + 12 / 4 = 24$

4.  $(9 - 12) * (4 - 12) = 24$

5.  $12 - 4 * (9 - 12) = 24$

6.  $(12 - 9) * (12 - 4) = 24$

7.  $12 + 4 * (12 - 9) = 24$

8.  $(9 * 12 - 12) / 4 = 24$

1304. [4, 9, 12, 13] - 无解

1305. [4, 9, 13, 13] - 无解

1306. [4, 10, 10, 10] - 无解

1307. [4, 10, 10, 11] - 1 个解:

1.  $4 * 11 - (10 + 10) = 24$

1308. [4, 10, 10, 12] - 2 个解:

1.  $4 - 10 * (10 - 12) = 24$

2.  $4 + 10 * (12 - 10) = 24$

1309. [4, 10, 10, 13] - 无解

1310. [4, 10, 11, 11] - 无解

1311. [4, 10, 11, 12] - 1 个解:

1.  $10 + 11 + 12 / 4 = 24$

1312. [4, 10, 11, 13] - 2 个解:

1.  $4 - 10 * (11 - 13) = 24$

2.  $4 + 10 * (13 - 11) = 24$

1313. [4, 10, 12, 12] - 3 个解:

1.  $12 * (4 + 10 - 12) = 24$

2.  $12 * 12 / (10 - 4) = 24$

3.  $4 * 12 / (12 - 10) = 24$

1314. [4, 10, 12, 13] - 4 个解:

1.  $(4 - 12) * (10 - 13) = 24$

2.  $(12 - 4) * (13 - 10) = 24$

3.  $12 - 4 * (10 - 13) = 24$

4.  $12 + 4 * (13 - 10) = 24$

1315. [4, 10, 13, 13] - 无解

1316. [4, 11, 11, 11] - 无解

1317. [4, 11, 11, 12] - 无解

1318. [4, 11, 11, 13] - 无解

1319. [4, 11, 12, 12] - 无解

1320. [4, 11, 12, 13] - 3 个解:

1.  $12 * (4 + 11 - 13) = 24$

2.  $4 * 12 - (11 + 13) = 24$

3.  $4 * 12 / (13 - 11) = 24$

1321. [4, 11, 13, 13] - 无解

1322. [4, 12, 12, 12] - 2 个解:

1.  $4 * 12 - (12 + 12) = 24$

2.  $12 * 12 / 4 - 12 = 24$

1323. [4, 12, 12, 13] - 无解

1324. [4, 12, 13, 13] - 无解

1325. [4, 13, 13, 13] - 无解

1326. [5, 5, 5, 5] - 1个解:

1.  $5 * 5 - 5 / 5 = 24$

1327. [5, 5, 5, 6] - 2个解:

1.  $5 + 5 * 5 - 6 = 24$

2.  $6 * (5 - 5 / 5) = 24$

1328. [5, 5, 5, 7] - 无解

1329. [5, 5, 5, 8] - 无解

1330. [5, 5, 5, 9] - 1个解:

1.  $5 + 5 + 5 + 9 = 24$

1331. [5, 5, 5, 10] - 无解

1332. [5, 5, 5, 11] - 无解

1333. [5, 5, 5, 12] - 1个解:

1.  $12 * (5 + 5) / 5 = 24$

1334. [5, 5, 5, 13] - 无解

1335. [5, 5, 6, 6] - 3个解:

1.  $6 * (5 + 5 - 6) = 24$

2.  $5 * 5 - 6 / 6 = 24$

3.  $5 * (6 - 6 / 5) = 24$

1336. [5, 5, 6, 7] - 2个解:

1.  $6 + 5 * 5 - 7 = 24$

2.  $5 * 7 - (5 + 6) = 24$

1337. [5, 5, 6, 8] - 1个解:

1.  $5 + 5 + 6 + 8 = 24$

1338. [5, 5, 6, 9] - 无解

1339. [5, 5, 6, 10] - 无解

1340. [5, 5, 6, 11] - 2个解:

1.  $5 + 5 * 6 - 11 = 24$

2.  $5 * (11 - 5) - 6 = 24$

1341. [5, 5, 6, 12] - 无解

1342. [5, 5, 6, 13] - 无解

1343. [5, 5, 7, 7] - 5个解:

1.  $7 * 7 - 5 * 5 = 24$

2.  $5 * 5 - 7 / 7 = 24$

3.  $(5 + 7) * (7 - 5) = 24$

4.  $(7 - 5) * (5 + 7) = 24$

5.  $5 + 5 + 7 + 7 = 24$

1344. [5, 5, 7, 8] - 2个解:

1.  $8 * (5 + 5 - 7) = 24$

2.  $7 + 5 * 5 - 8 = 24$

1345. [5, 5, 7, 9] - 无解

1346. [5, 5, 7, 10] - 1个解:

1.  $10 * (5 + 7) / 5 = 24$

1347. [5, 5, 7, 11] - 1个解:

1.  $5 * (7 - 11 / 5) = 24$

1348. [5, 5, 7, 12] - 无解

1349. [5, 5, 7, 13] - 无解

1350. [5, 5, 8, 8] - 1个解:

1.  $5 * 5 - 8 / 8 = 24$

1351. [5, 5, 8, 9] - 3个解:

1.  $8 + 5 * 5 - 9 = 24$

2.  $9 - 5 * (5 - 8) = 24$

3.  $9 + 5 * (8 - 5) = 24$

1352. [5, 5, 8, 10] - 2个解:

1.  $8 * (5 + 10) / 5 = 24$

2.  $8 * (5 - 10 / 5) = 24$

1353. [5, 5, 8, 11] - 1个解:

1.  $5 * 8 - (5 + 11) = 24$

1354. [5, 5, 8, 12] - 1个解:

1.  $12 * (5 + 5 - 8) = 24$

1355. [5, 5, 8, 13] - 3个解:

1.  $8 * (13 - (5 + 5)) = 24$

2.  $(5 - 8) * (5 - 13) = 24$

3.  $(8 - 5) * (13 - 5) = 24$

1356. [5, 5, 9, 9] - 1个解:

1.  $5 * 5 - 9 / 9 = 24$

1357. [5, 5, 9, 10] - 1个解:

1.  $9 + 5 * 5 - 10 = 24$

1358. [5, 5, 9, 11] - 2个解:

1.  $(5 - 9) * (5 - 11) = 24$

2.  $(9 - 5) * (11 - 5) = 24$

1359. [5, 5, 9, 12] - 无解

1360. [5, 5, 9, 13] - 无解

1361. [5, 5, 10, 10] - 1个解:

1.  $5 * 5 - 10 / 10 = 24$

1362. [5, 5, 10, 11] - 1个解:

1.  $10 + 5 * 5 - 11 = 24$

1363. [5, 5, 10, 12] - 无解

1364. [5, 5, 10, 13] - 2个解:

1.  $10 + 13 + 5 / 5 = 24$

2.  $10 * (5 - 13 / 5) = 24$

1365. [5, 5, 11, 11] - 1个解:

1.  $5 * 5 - 11 / 11 = 24$

1366. [5, 5, 11, 12] - 3个解:

1.  $11 + 5 * 5 - 12 = 24$

2.  $11 + 12 + 5 / 5 = 24$

3.  $5 * (12 - 5) - 11 = 24$

1367. [5, 5, 11, 13] - 4个解:

1.  $13 + 5 * 11 / 5 = 24$

2.  $11 + 5 * 13 / 5 = 24$

3.  $5 + 11 + 13 - 5 = 24$

4.  $5 * (11 + 13) / 5 = 24$

1368. [5, 5, 12, 12] - 5个解:

1.  $12 * (12 - (5 + 5)) = 24$

2.  $5 * 5 - 12 / 12 = 24$

3.  $12 + 5 * 12 / 5 = 24$

4.  $5 + 12 + 12 - 5 = 24$

5.  $5 * (12 + 12) / 5 = 24$

1369. [5, 5, 12, 13] - 2个解:

1.  $12 + 5 * 5 - 13 = 24$

2.  $12 + 13 - 5 / 5 = 24$

1370. [5, 5, 13, 13] - 1 个解:

1.  $5 * 5 - 13 / 13 = 24$

1371. [5, 6, 6, 6] - 1 个解:

1.  $6 * (5 - 6 / 6) = 24$

1372. [5, 6, 6, 7] - 4 个解:

1.  $6 * (5 + 6 - 7) = 24$
2.  $(6 + 6) * (7 - 5) = 24$
3.  $6 * 6 - (5 + 7) = 24$
4.  $5 + 6 + 6 + 7 = 24$

1373. [5, 6, 6, 8] - 2 个解:

1.  $6 - 6 * (5 - 8) = 24$
2.  $6 + 6 * (8 - 5) = 24$

1374. [5, 6, 6, 9] - 1 个解:

1.  $6 * 9 - 5 * 6 = 24$

1375. [5, 6, 6, 10] - 3 个解:

1.  $10 * (6 + 6) / 5 = 24$
2.  $6 * (10 - 5) - 6 = 24$
3.  $6 * (6 - 10 / 5) = 24$

1376. [5, 6, 6, 11] - 无解

1377. [5, 6, 6, 12] - 3 个解:

1.  $6 + 5 * 6 - 12 = 24$
2.  $5 * 12 - 6 * 6 = 24$
3.  $5 * (12 - 6) - 6 = 24$

1378. [5, 6, 6, 13] - 无解

1379. [5, 6, 7, 7] - 1 个解:

1.  $6 * (5 - 7 / 7) = 24$

1380. [5, 6, 7, 8] - 3 个解:

1.  $(5 + 7) * (8 - 6) = 24$
2.  $6 * (5 + 7 - 8) = 24$
3.  $6 * 8 / (7 - 5) = 24$

1381. [5, 6, 7, 9] - 2 个解:

1.  $6 - 9 * (5 - 7) = 24$
2.  $6 + 9 * (7 - 5) = 24$

1382. [5, 6, 7, 10] - 无解

1383. [5, 6, 7, 11] - 无解

1384. [5, 6, 7, 12] - 3 个解:

1.  $12 * (5 + 7) / 6 = 24$
2.  $12 - 6 * (5 - 7) = 24$
3.  $12 + 6 * (7 - 5) = 24$

1385. [5, 6, 7, 13] - 4 个解:

1.  $7 + 5 * 6 - 13 = 24$
2.  $6 * 7 - (5 + 13) = 24$
3.  $6 * (7 + 13) / 5 = 24$
4.  $5 * (13 - 7) - 6 = 24$

1386. [5, 6, 8, 8] - 2 个解:

1.  $8 * (5 + 6 - 8) = 24$
2.  $6 * (5 - 8 / 8) = 24$

1387. [5, 6, 8, 9] - 2 个解:

1.  $6 * (5 + 8 - 9) = 24$
2.  $8 * (6 + 9) / 5 = 24$

1388. [5, 6, 8, 10] - 3 个解:

1.  $10 * (8 - 5) - 6 = 24$
2.  $5 * 8 - (6 + 10) = 24$
3.  $5 * 6 * 8 / 10 = 24$

1389. [5, 6, 8, 11] - 无解

1390. [5, 6, 8, 12] - 3 个解:

1.  $6 * 12 / (8 - 5) = 24$
2.  $8 * (5 - 12 / 6) = 24$
3.  $6 * (8 + 12) / 5 = 24$

1391. [5, 6, 8, 13] - 1 个解:

1.  $8 * (5 + 13) / 6 = 24$

1392. [5, 6, 9, 9] - 3 个解:

1.  $9 - 5 * (6 - 9) = 24$
2.  $9 + 5 * (9 - 6) = 24$
3.  $6 * (5 - 9 / 9) = 24$

1393. [5, 6, 9, 10] - 2 个解:

1.  $6 * (5 + 9 - 10) = 24$
2.  $6 + 9 * 10 / 5 = 24$

1394. [5, 6, 9, 11] - 2 个解:

1.  $9 * (5 + 11) / 6 = 24$
2.  $6 * (9 + 11) / 5 = 24$

1395. [5, 6, 9, 12] - 3 个解:

1.  $12 * (5 + 6 - 9) = 24$

2.  $(5 - 9) * (6 - 12) = 24$

3.  $(9 - 5) * (12 - 6) = 24$

1396. [5, 6, 9, 13] - 2 个解:

1.  $(6 - 9) * (5 - 13) = 24$
2.  $(9 - 6) * (13 - 5) = 24$

1397. [5, 6, 10, 10] - 2 个解:

1.  $6 * (10 + 10) / 5 = 24$
2.  $6 * (5 - 10 / 10) = 24$

1398. [5, 6, 10, 11] - 3 个解:

1.  $6 * (5 + 10 - 11) = 24$
2.  $(6 - 10) * (5 - 11) = 24$
3.  $(10 - 6) * (11 - 5) = 24$

1399. [5, 6, 10, 12] - 2 个解:

1.  $12 + 6 * 10 / 5 = 24$
2.  $5 * (6 - 12 / 10) = 24$

1400. [5, 6, 10, 13] - 1 个解:

1.  $6 + 10 + 13 - 5 = 24$

1401. [5, 6, 11, 11] - 1 个解:

1.  $6 * (5 - 11 / 11) = 24$

1402. [5, 6, 11, 12] - 3 个解:

1.  $6 * (5 + 11 - 12) = 24$
2.  $6 * (11 - 5) - 12 = 24$
3.  $6 + 11 + 12 - 5 = 24$

1403. [5, 6, 11, 13] - 11 个解:

1.  $13 - 11 * (5 - 6) = 24$
2.  $13 - 11 / (5 - 6) = 24$
3.  $11 - 13 * (5 - 6) = 24$
4.  $11 - 13 / (5 - 6) = 24$
5.  $(6 - 5) * (11 + 13) = 24$
6.  $(11 + 13) / (6 - 5) = 24$
7.  $13 + 11 * (6 - 5) = 24$
8.  $13 + 11 / (6 - 5) = 24$
9.  $11 + 13 * (6 - 5) = 24$
10.  $11 + 13 / (6 - 5) = 24$
11.  $5 * (13 - 6) - 11 = 24$

1404. [5, 6, 12, 12] - 7 个解:

1.  $12 - 12 * (5 - 6) = 24$
2.  $12 - 12 / (5 - 6) = 24$
3.  $(6 - 5) * (12 + 12) = 24$

4. $(12 + 12) / (6 - 5) = 24$	1420. $[5, 7, 9, 9] - \text{无解}$	1434. $[5, 7, 13, 13] - 1 \text{ 个解:}$
5. $12 + 12 * (6 - 5) = 24$		1. $5 + 13 + 13 - 7 = 24$
6. $12 + 12 / (6 - 5) = 24$	1421. $[5, 7, 9, 10] - 2 \text{ 个解:}$	1435. $[5, 8, 8, 8] - 2 \text{ 个解:}$
7. $6 * (5 - 12 / 12) = 24$	1. $9 - 5 * (7 - 10) = 24$	1. $5 * 8 - (8 + 8) = 24$
1405. $[5, 6, 12, 13] - 3 \text{ 个解:}$	2. $9 + 5 * (10 - 7) = 24$	2. $8 * 8 - 5 * 8 = 24$
1. $12 * (13 - (5 + 6)) = 24$	1422. $[5, 7, 9, 11] - 1 \text{ 个解:}$	1436. $[5, 8, 8, 9] - 2 \text{ 个解:}$
2. $6 * (5 + 12 - 13) = 24$	1. $(5 + 7) * (11 - 9) = 24$	1. $8 * 9 / (8 - 5) = 24$
3. $5 + 12 + 13 - 6 = 24$	1423. $[5, 7, 9, 12] - 1 \text{ 个解:}$	2. $8 * (9 - 5) - 8 = 24$
1406. $[5, 6, 13, 13] - 1 \text{ 个解:}$	1. $12 * (5 + 9) / 7 = 24$	1437. $[5, 8, 8, 10] - 2 \text{ 个解:}$
1. $6 * (5 - 13 / 13) = 24$	1424. $[5, 7, 9, 13] - 3 \text{ 个解:}$	1. $8 * (5 + 8 - 10) = 24$
1407. $[5, 7, 7, 7] - \text{无解}$	1. $(5 - 9) * (7 - 13) = 24$	2. $8 + 8 * 10 / 5 = 24$
1408. $[5, 7, 7, 8] - \text{无解}$	2. $(9 - 5) * (13 - 7) = 24$	1438. $[5, 8, 8, 11] - \text{无解}$
	3. $7 + 9 + 13 - 5 = 24$	1439. $[5, 8, 8, 12] - \text{无解}$
1409. $[5, 7, 7, 9] - 1 \text{ 个解:}$	1425. $[5, 7, 10, 10] - 1 \text{ 个解:}$	1440. $[5, 8, 8, 13] - 1 \text{ 个解:}$
1. $(5 + 7) * (9 - 7) = 24$	1. $10 + 7 * 10 / 5 = 24$	1. $8 + 8 + 13 - 5 = 24$
1410. $[5, 7, 7, 10] - 2 \text{ 个解:}$	1426. $[5, 7, 10, 11] - 1 \text{ 个解:}$	1441. $[5, 8, 9, 9] - \text{无解}$
1. $10 - 7 * (5 - 7) = 24$	1. $7 * (10 - 5) - 11 = 24$	1442. $[5, 8, 9, 10] - \text{无解}$
2. $10 + 7 * (7 - 5) = 24$	1427. $[5, 7, 10, 12] - 3 \text{ 个解:}$	1443. $[5, 8, 9, 11] - 4 \text{ 个解:}$
1411. $[5, 7, 7, 11] - 1 \text{ 个解:}$	1. $(5 + 7) * (12 - 10) = 24$	1. $11 * (8 - 5) - 9 = 24$
1. $7 * (5 - 11 / 7) = 24$	2. $12 * (5 + 7 - 10) = 24$	2. $8 * (5 + 9 - 11) = 24$
1412. $[5, 7, 7, 12] - \text{无解}$	3. $7 + 10 + 12 - 5 = 24$	3. $9 - 5 * (8 - 11) = 24$
1413. $[5, 7, 7, 13] - \text{无解}$	1428. $[5, 7, 10, 13] - 2 \text{ 个解:}$	4. $9 + 5 * (11 - 8) = 24$
1414. $[5, 7, 8, 8] - 3 \text{ 个解:}$	1. $(7 - 10) * (5 - 13) = 24$	1444. $[5, 8, 9, 12] - 2 \text{ 个解:}$
1. $8 - 8 * (5 - 7) = 24$	2. $(10 - 7) * (13 - 5) = 24$	1. $8 * 12 / (9 - 5) = 24$
2. $8 + 8 * (7 - 5) = 24$	1429. $[5, 7, 11, 11] - 5 \text{ 个解:}$	2. $8 + 9 + 12 - 5 = 24$
3. $8 * (7 + 8) / 5 = 24$	1. $(5 - 11) * (7 - 11) = 24$	1445. $[5, 8, 9, 13] - 1 \text{ 个解:}$
1415. $[5, 7, 8, 9] - 2 \text{ 个解:}$	2. $(11 - 5) * (11 - 7) = 24$	1. $5 * 9 - (8 + 13) = 24$
1. $8 * (5 + 7 - 9) = 24$	3. $(7 - 11) * (5 - 11) = 24$	1446. $[5, 8, 10, 10] - \text{无解}$
2. $5 * 8 - (7 + 9) = 24$	4. $(11 - 7) * (11 - 5) = 24$	1447. $[5, 8, 10, 11] - 1 \text{ 个解:}$
1416. $[5, 7, 8, 10] - 1 \text{ 个解:}$	5. $7 + 11 + 11 - 5 = 24$	1. $8 + 10 + 11 - 5 = 24$
1. $(5 + 7) * (10 - 8) = 24$	1430. $[5, 7, 11, 12] - \text{无解}$	1448. $[5, 8, 10, 12] - 1 \text{ 个解:}$
1417. $[5, 7, 8, 11] - \text{无解}$	1431. $[5, 7, 11, 13] - 1 \text{ 个解:}$	1. $8 * (5 + 10 - 12) = 24$
1418. $[5, 7, 8, 12] - \text{无解}$	1. $(5 + 7) * (13 - 11) = 24$	1449. $[5, 8, 10, 13] - \text{无解}$
1419. $[5, 7, 8, 13] - \text{无解}$	1432. $[5, 7, 12, 12] - 1 \text{ 个解:}$	
	1. $7 * 12 - 5 * 12 = 24$	
	1433. $[5, 7, 12, 13] - \text{无解}$	

1450. [5, 8, 11, 11] - 无解

1451. [5, 8, 11, 12] - 4个解:

1.  $12 * (5 + 8 - 11) = 24$
2.  $12 * (5 + 11) / 8 = 24$
3.  $(5 - 11) * (8 - 12) = 24$
4.  $(11 - 5) * (12 - 8) = 24$

1452. [5, 8, 11, 13] - 3个解:

1.  $8 * (5 + 11 - 13) = 24$
2.  $(8 - 11) * (5 - 13) = 24$
3.  $(11 - 8) * (13 - 5) = 24$

1453. [5, 8, 12, 12] - 1个解:

1.  $12 * (8 - 5) - 12 = 24$

1454. [5, 8, 12, 13] - 无解

1455. [5, 8, 13, 13] - 无解

1456. [5, 9, 9, 9] - 无解

1457. [5, 9, 9, 10] - 无解

1458. [5, 9, 9, 11] - 1个解:

1.  $9 + 9 + 11 - 5 = 24$

1459. [5, 9, 9, 12] - 4个解:

1.  $9 * (9 - 5) - 12 = 24$
2.  $5 * 9 - (9 + 12) = 24$
3.  $9 - 5 * (9 - 12) = 24$
4.  $9 + 5 * (12 - 9) = 24$

1460. [5, 9, 9, 13] - 无解

1461. [5, 9, 10, 10] - 1个解:

1.  $9 + 10 + 10 - 5 = 24$

1462. [5, 9, 10, 11] - 1个解:

1.  $5 * 9 - (10 + 11) = 24$

1463. [5, 9, 10, 12] - 无解

1464. [5, 9, 10, 13] - 3个解:

1.  $9 + 13 + 10 / 5 = 24$
2.  $9 - 5 * (10 - 13) = 24$
3.  $9 + 5 * (13 - 10) = 24$

1465. [5, 9, 11, 11] - 无解

1466. [5, 9, 11, 12] - 无解

1467. [5, 9, 11, 13] - 2个解:

1.  $(5 - 11) * (9 - 13) = 24$
2.  $(11 - 5) * (13 - 9) = 24$

1468. [5, 9, 12, 12] - 2个解:

1.  $12 * (5 + 9 - 12) = 24$
2.  $(12 + 9 * 12) / 5 = 24$

1469. [5, 9, 12, 13] - 3个解:

1.  $(9 - 12) * (5 - 13) = 24$
2.  $(12 - 9) * (13 - 5) = 24$
3.  $12 * (5 + 13) / 9 = 24$

1470. [5, 9, 13, 13] - 无解

1471. [5, 10, 10, 10] - 无解

1472. [5, 10, 10, 11] - 1个解:

1.  $(10 + 10 * 11) / 5 = 24$

1473. [5, 10, 10, 12] - 2个解:

1.  $10 * 12 / (10 - 5) = 24$
2.  $10 + 12 + 10 / 5 = 24$

1474. [5, 10, 10, 13] - 1个解:

1.  $(10 * 13 - 10) / 5 = 24$

1475. [5, 10, 11, 11] - 1个解:

1.  $11 + 11 + 10 / 5 = 24$

1476. [5, 10, 11, 12] - 无解

1477. [5, 10, 11, 13] - 无解

1478. [5, 10, 12, 12] - 无解

1479. [5, 10, 12, 13] - 1个解:

1.  $12 * (5 + 10 - 13) = 24$

1480. [5, 10, 13, 13] - 6个解:

1.  $5 * 10 - (13 + 13) = 24$
2.  $13 + 13 - 10 / 5 = 24$
3.  $(5 - 13) * (10 - 13) = 24$
4.  $(13 - 5) * (13 - 10) = 24$
5.  $(10 - 13) * (5 - 13) = 24$
6.  $(13 - 10) * (13 - 5) = 24$

1481. [5, 11, 11, 11] - 无解

1482. [5, 11, 11, 12] - 无解

1483. [5, 11, 11, 13] - 无解

1484. [5, 11, 12, 12] - 2个解:

1.  $12 * 12 / (11 - 5) = 24$
2.  $(11 * 12 - 12) / 5 = 24$

1485. [5, 11, 12, 13] - 无解

1486. [5, 11, 13, 13] - 无解

1487. [5, 12, 12, 12] - 无解

1488. [5, 12, 12, 13] - 无解

1489. [5, 12, 13, 13] - 无解

1490. [5, 13, 13, 13] - 无解

1491. [6, 6, 6, 6] - 2个解:

1.  $6 * 6 - (6 + 6) = 24$
2.  $6 + 6 + 6 + 6 = 24$

1492. [6, 6, 6, 7] - 无解

1493. [6, 6, 6, 8] - 2个解:

1.  $(6 + 6) * (8 - 6) = 24$
2.  $6 * (6 + 6 - 8) = 24$

1494. [6, 6, 6, 9] - 3个解:

1.  $6 * 6 * 6 / 9 = 24$
2.  $6 - 6 * (6 - 9) = 24$
3.  $6 + 6 * (9 - 6) = 24$

1495. [6, 6, 6, 10] - 1个解:

1.  $6 * 10 - 6 * 6 = 24$

1496. [6, 6, 6, 11] - 1个解:

1.  $6 * (11 - 6) - 6 = 24$

1497. [6, 6, 6, 12] - 2个解:

1.  $12 * (6 + 6) / 6 = 24$
2.  $6 * (6 - 12 / 6) = 24$

1498. [6, 6, 6, 13] - 无解



1499.  $[6, 6, 7, 7]$  - 无解

1500.  $[6, 6, 7, 8]$  - 无解

1501.  $[6, 6, 7, 9]$  - 2 个解:

1.  $(6 + 6) * (9 - 7) = 24$
2.  $6 * (6 + 7 - 9) = 24$

1502.  $[6, 6, 7, 10]$  - 2 个解:

1.  $6 - 6 * (7 - 10) = 24$
2.  $6 + 6 * (10 - 7) = 24$

1503.  $[6, 6, 7, 11]$  - 1 个解:

1.  $6 * 11 - 6 * 7 = 24$

1504.  $[6, 6, 7, 12]$  - 2 个解:

1.  $6 * 7 - (6 + 12) = 24$
2.  $6 * (12 - 7) - 6 = 24$

1505.  $[6, 6, 7, 13]$  - 无解

1506.  $[6, 6, 8, 8]$  - 1 个解:

1.  $6 * 8 / (8 - 6) = 24$

1507.  $[6, 6, 8, 9]$  - 3 个解:

1.  $8 * (6 + 6 - 9) = 24$
2.  $6 - 9 * (6 - 8) = 24$
3.  $6 + 9 * (8 - 6) = 24$

1508.  $[6, 6, 8, 10]$  - 2 个解:

1.  $(6 + 6) * (10 - 8) = 24$
2.  $6 * (6 + 8 - 10) = 24$

1509.  $[6, 6, 8, 11]$  - 2 个解:

1.  $6 - 6 * (8 - 11) = 24$
2.  $6 + 6 * (11 - 8) = 24$

1510.  $[6, 6, 8, 12]$  - 5 个解:

1.  $12 - 6 * (6 - 8) = 24$
2.  $12 + 6 * (8 - 6) = 24$
3.  $6 * 12 - 6 * 8 = 24$
4.  $6 * 6 * 8 / 12 = 24$
5.  $8 * (6 + 12) / 6 = 24$

1511.  $[6, 6, 8, 13]$  - 1 个解:

1.  $6 * (13 - 8) - 6 = 24$

1512.  $[6, 6, 9, 9]$  - 无解

1513.  $[6, 6, 9, 10]$  - 2 个解:

1.  $10 * (9 - 6) - 6 = 24$
2.  $9 * (6 + 10) / 6 = 24$

1514.  $[6, 6, 9, 11]$  - 2 个解:

1.  $(6 + 6) * (11 - 9) = 24$
2.  $6 * (6 + 9 - 11) = 24$

1515.  $[6, 6, 9, 12]$  - 4 个解:

1.  $6 * 12 / (9 - 6) = 24$
2.  $6 - 6 * (9 - 12) = 24$
3.  $6 + 6 * (12 - 9) = 24$
4.  $6 + 9 * 12 / 6 = 24$

1516.  $[6, 6, 9, 13]$  - 1 个解:

1.  $6 * 13 - 6 * 9 = 24$

1517.  $[6, 6, 10, 10]$  - 无解

1518.  $[6, 6, 10, 11]$  - 无解

1519.  $[6, 6, 10, 12]$  - 5 个解:

1.  $(6 + 6) * (12 - 10) = 24$
2.  $12 * (6 + 6 - 10) = 24$
3.  $6 * (6 + 10 - 12) = 24$
4.  $(6 - 10) * (6 - 12) = 24$
5.  $(10 - 6) * (12 - 6) = 24$

1520.  $[6, 6, 10, 13]$  - 3 个解:

1.  $10 + 13 + 6 / 6 = 24$
2.  $6 - 6 * (10 - 13) = 24$
3.  $6 + 6 * (13 - 10) = 24$

1521.  $[6, 6, 11, 11]$  - 无解

1522.  $[6, 6, 11, 12]$  - 1 个解:

1.  $11 + 12 + 6 / 6 = 24$

1523.  $[6, 6, 11, 13]$  - 6 个解:

1.  $(6 + 6) * (13 - 11) = 24$
2.  $6 * (6 + 11 - 13) = 24$
3.  $13 + 6 * 11 / 6 = 24$
4.  $11 + 6 * 13 / 6 = 24$
5.  $6 + 11 + 13 - 6 = 24$
6.  $6 * (11 + 13) / 6 = 24$

1524.  $[6, 6, 12, 12]$  - 4 个解:

1.  $6 * (12 - 6) - 12 = 24$

$$2. 12 + 6 * 12 / 6 = 24$$

$$3. 6 + 12 + 12 - 6 = 24$$

$$4. 6 * (12 + 12) / 6 = 24$$

1525.  $[6, 6, 12, 13]$  - 1 个解:

1.  $12 + 13 - 6 / 6 = 24$

1526.  $[6, 6, 13, 13]$  - 无解

1527.  $[6, 7, 7, 7]$  - 无解

1528.  $[6, 7, 7, 8]$  - 无解

1529.  $[6, 7, 7, 9]$  - 无解

1530.  $[6, 7, 7, 10]$  - 1 个解:

1.  $6 * (7 + 7 - 10) = 24$

1531.  $[6, 7, 7, 11]$  - 1 个解:

1.  $6 * 7 - (7 + 11) = 24$

1532.  $[6, 7, 7, 12]$  - 无解

1533.  $[6, 7, 7, 13]$  - 无解

1534.  $[6, 7, 8, 8]$  - 无解

1535.  $[6, 7, 8, 9]$  - 1 个解:

1.  $6 * 8 / (9 - 7) = 24$

1536.  $[6, 7, 8, 10]$  - 4 个解:

1.  $8 * (6 + 7 - 10) = 24$
2.  $6 * 7 - (8 + 10) = 24$
3.  $10 - 7 * (6 - 8) = 24$
4.  $10 + 7 * (8 - 6) = 24$

1537.  $[6, 7, 8, 11]$  - 2 个解:

1.  $6 * (7 + 8 - 11) = 24$
2.  $8 * (7 + 11) / 6 = 24$

1538.  $[6, 7, 8, 12]$  - 1 个解:

1.  $12 * (6 + 8) / 7 = 24$

1539.  $[6, 7, 8, 13]$  - 无解

1540.  $[6, 7, 9, 9]$  - 4 个解:

1.  $6 * 7 - (9 + 9) = 24$
2.  $9 * (7 + 9) / 6 = 24$
3.  $6 - 9 * (7 - 9) = 24$

4.  $6 + 9 * (9 - 7) = 24$

1541.  $[6, 7, 9, 10]$  - 无解

1542.  $[6, 7, 9, 11]$  - 无解

1543.  $[6, 7, 9, 12]$  - 3个解:

- $6 * (7 + 9 - 12) = 24$
- $12 - 6 * (7 - 9) = 24$
- $12 + 6 * (9 - 7) = 24$

1544.  $[6, 7, 9, 13]$  - 无解

1545.  $[6, 7, 10, 10]$  - 1个解:

- $10 * (10 - 7) - 6 = 24$

1546.  $[6, 7, 10, 11]$  - 无解

1547.  $[6, 7, 10, 12]$  - 3个解:

- $7 * 12 - 6 * 10 = 24$
- $6 * 12 / (10 - 7) = 24$
- $10 + 7 * 12 / 6 = 24$

1548.  $[6, 7, 10, 13]$  - 4个解:

- $(6 - 10) * (7 - 13) = 24$
- $(10 - 6) * (13 - 7) = 24$
- $6 * (7 + 10 - 13) = 24$
- $7 + 10 + 13 - 6 = 24$

1549.  $[6, 7, 11, 11]$  - 1个解:

- $7 * (11 - 6) - 11 = 24$

1550.  $[6, 7, 11, 12]$  - 4个解:

- $12 * (6 + 7 - 11) = 24$
- $(7 - 11) * (6 - 12) = 24$
- $(11 - 7) * (12 - 6) = 24$
- $7 + 11 + 12 - 6 = 24$

1551.  $[6, 7, 11, 13]$  - 10个解:

- $13 - 11 * (6 - 7) = 24$
- $13 - 11 / (6 - 7) = 24$
- $11 - 13 * (6 - 7) = 24$
- $11 - 13 / (6 - 7) = 24$
- $(7 - 6) * (11 + 13) = 24$
- $(11 + 13) / (7 - 6) = 24$
- $13 + 11 * (7 - 6) = 24$
- $13 + 11 / (7 - 6) = 24$
- $11 + 13 * (7 - 6) = 24$
- $11 + 13 / (7 - 6) = 24$

1552.  $[6, 7, 12, 12]$  - 6个解:

- $12 - 12 * (6 - 7) = 24$
- $12 - 12 / (6 - 7) = 24$
- $(7 - 6) * (12 + 12) = 24$
- $(12 + 12) / (7 - 6) = 24$
- $12 + 12 * (7 - 6) = 24$
- $12 + 12 / (7 - 6) = 24$

1553.  $[6, 7, 12, 13]$  - 2个解:

- $6 * (13 - 7) - 12 = 24$
- $6 + 12 + 13 - 7 = 24$

1554.  $[6, 7, 13, 13]$  - 无解

1555.  $[6, 8, 8, 8]$  - 2个解:

- $8 - 8 * (6 - 8) = 24$
- $8 + 8 * (8 - 6) = 24$

1556.  $[6, 8, 8, 9]$  - 2个解:

- $8 * 9 - 6 * 8 = 24$
- $9 * (8 + 8) / 6 = 24$

1557.  $[6, 8, 8, 10]$  - 3个解:

- $6 * 8 / (10 - 8) = 24$
- $8 * (10 - 6) - 8 = 24$
- $8 * (8 + 10) / 6 = 24$

1558.  $[6, 8, 8, 11]$  - 1个解:

- $8 * (6 + 8 - 11) = 24$

1559.  $[6, 8, 8, 12]$  - 2个解:

- $6 * (8 + 8 - 12) = 24$
- $8 + 8 * 12 / 6 = 24$

1560.  $[6, 8, 8, 13]$  - 无解

1561.  $[6, 8, 9, 9]$  - 2个解:

- $8 * 9 / (9 - 6) = 24$
- $8 * (9 + 9) / 6 = 24$

1562.  $[6, 8, 9, 10]$  - 2个解:

- $6 - 9 * (8 - 10) = 24$
- $6 + 9 * (10 - 8) = 24$

1563.  $[6, 8, 9, 11]$  - 1个解:

- $6 * 8 / (11 - 9) = 24$

1564.  $[6, 8, 9, 12]$  - 2个解:

1.  $8 * (6 + 9 - 12) = 24$

2.  $12 + 8 * 9 / 6 = 24$

1565.  $[6, 8, 9, 13]$  - 2个解:

- $6 * (8 + 9 - 13) = 24$
- $8 + 9 + 13 - 6 = 24$

1566.  $[6, 8, 10, 10]$  - 无解

1567.  $[6, 8, 10, 11]$  - 1个解:

- $10 * (11 - 8) - 6 = 24$

1568.  $[6, 8, 10, 12]$  - 6个解:

- $6 * 8 / (12 - 10) = 24$
- $12 * (6 + 10) / 8 = 24$
- $8 * 12 / (10 - 6) = 24$
- $12 - 6 * (8 - 10) = 24$
- $12 + 6 * (10 - 8) = 24$
- $8 + 10 + 12 - 6 = 24$

1569.  $[6, 8, 10, 13]$  - 1个解:

- $8 * (6 + 10 - 13) = 24$

1570.  $[6, 8, 11, 11]$  - 1个解:

- $8 + 11 + 11 - 6 = 24$

1571.  $[6, 8, 11, 12]$  - 1个解:

- $6 * 12 / (11 - 8) = 24$

1572.  $[6, 8, 11, 13]$  - 2个解:

- $6 * 8 - (11 + 13) = 24$
- $6 * 8 / (13 - 11) = 24$

1573.  $[6, 8, 12, 12]$  - 8个解:

- $12 * (6 + 8 - 12) = 24$
- $6 * 8 - (12 + 12) = 24$
- $(6 - 12) * (8 - 12) = 24$
- $(12 - 6) * (12 - 8) = 24$
- $8 * 12 - 6 * 12 = 24$
- $(8 - 12) * (6 - 12) = 24$
- $(12 - 8) * (12 - 6) = 24$
- $6 + 12 * 12 / 8 = 24$

1574.  $[6, 8, 12, 13]$  - 无解

1575.  $[6, 8, 13, 13]$  - 1个解:

- $6 + 13 + 13 - 8 = 24$

1576.  $[6, 9, 9, 9]$  - 无解

1577. [6, 9, 9, 10] - 1 个解:

1.  $9 + 9 * 10 / 6 = 24$

1578. [6, 9, 9, 11] - 3 个解:

1.  $11 * (9 - 6) - 9 = 24$

2.  $6 - 9 * (9 - 11) = 24$

3.  $6 + 9 * (11 - 9) = 24$

1579. [6, 9, 9, 12] - 1 个解:

1.  $9 + 9 + 12 - 6 = 24$

1580. [6, 9, 9, 13] - 无解

1581. [6, 9, 10, 10] - 无解

1582. [6, 9, 10, 11] - 2 个解:

1.  $9 * 10 - 6 * 11 = 24$

2.  $9 + 10 + 11 - 6 = 24$

1583. [6, 9, 10, 12] - 4 个解:

1.  $9 * (10 - 6) - 12 = 24$

2.  $10 * (12 - 9) - 6 = 24$

3.  $6 - 9 * (10 - 12) = 24$

4.  $6 + 9 * (12 - 10) = 24$

1584. [6, 9, 10, 13] - 无解

1585. [6, 9, 11, 11] - 无解

1586. [6, 9, 11, 12] - 2 个解:

1.  $12 - 6 * (9 - 11) = 24$

2.  $12 + 6 * (11 - 9) = 24$

1587. [6, 9, 11, 13] - 2 个解:

1.  $6 - 9 * (11 - 13) = 24$

2.  $6 + 9 * (13 - 11) = 24$

1588. [6, 9, 12, 12] - 3 个解:

1.  $12 * (9 - 6) - 12 = 24$

2.  $12 * (6 + 12) / 9 = 24$

3.  $6 * 12 / (12 - 9) = 24$

1589. [6, 9, 12, 13] - 4 个解:

1.  $12 * (6 + 9 - 13) = 24$

2.  $(6 - 12) * (9 - 13) = 24$

3.  $(12 - 6) * (13 - 9) = 24$

4.  $9 + 13 + 12 / 6 = 24$

1590. [6, 9, 13, 13] - 无解

1591. [6, 10, 10, 10] - 1 个解:

1.  $10 + 10 + 10 - 6 = 24$

1592. [6, 10, 10, 11] - 无解

1593. [6, 10, 10, 12] - 无解

1594. [6, 10, 10, 13] - 1 个解:

1.  $10 * (13 - 10) - 6 = 24$

1595. [6, 10, 11, 11] - 无解

1596. [6, 10, 11, 12] - 1 个解:

1.  $10 * 12 / (11 - 6) = 24$

1597. [6, 10, 11, 13] - 无解

1598. [6, 10, 12, 12] - 3 个解:

1.  $10 + 12 + 12 / 6 = 24$

2.  $12 - 6 * (10 - 12) = 24$

3.  $12 + 6 * (12 - 10) = 24$

1599. [6, 10, 12, 13] - 1 个解:

1.  $6 * 12 / (13 - 10) = 24$

1600. [6, 10, 13, 13] - 无解

1601. [6, 11, 11, 11] - 无解

1602. [6, 11, 11, 12] - 1 个解:

1.  $11 + 11 + 12 / 6 = 24$

1603. [6, 11, 11, 13] - 无解

1604. [6, 11, 12, 12] - 1 个解:

1.  $(12 + 11 * 12) / 6 = 24$

1605. [6, 11, 12, 13] - 2 个解:

1.  $12 - 6 * (11 - 13) = 24$

2.  $12 + 6 * (13 - 11) = 24$

1606. [6, 11, 13, 13] - 无解

1607. [6, 12, 12, 12] - 1 个解:

1.  $12 * 12 / (12 - 6) = 24$

1608. [6, 12, 12, 13] - 1 个解:

1.  $(12 * 13 - 12) / 6 = 24$

1609. [6, 12, 13, 13] - 1 个解:

1.  $13 + 13 - 12 / 6 = 24$

1610. [6, 13, 13, 13] - 无解

1611. [7, 7, 7, 7] - 无解

1612. [7, 7, 7, 8] - 无解

1613. [7, 7, 7, 9] - 无解

1614. [7, 7, 7, 10] - 无解

1615. [7, 7, 7, 11] - 无解

1616. [7, 7, 7, 12] - 1 个解:

1.  $12 * (7 + 7) / 7 = 24$

1617. [7, 7, 7, 13] - 无解

1618. [7, 7, 8, 8] - 无解

1619. [7, 7, 8, 9] - 无解

1620. [7, 7, 8, 10] - 无解

1621. [7, 7, 8, 11] - 1 个解:

1.  $8 * (7 + 7 - 11) = 24$

1622. [7, 7, 8, 12] - 无解

1623. [7, 7, 8, 13] - 无解

1624. [7, 7, 9, 9] - 无解

1625. [7, 7, 9, 10] - 2 个解:

1.  $10 - 7 * (7 - 9) = 24$

2.  $10 + 7 * (9 - 7) = 24$

1626. [7, 7, 9, 11] - 无解

1627. [7, 7, 9, 12] - 无解

1628. [7, 7, 9, 13] - 无解

1629. [7, 7, 10, 10] - 无解

1630. [7, 7, 10, 11] - 无解

1631. [7, 7, 10, 12] - 无解

1632. [7, 7, 10, 13] - 1个解:

1.  $10 + 13 + 7 / 7 = 24$

1633. [7, 7, 11, 11] - 无解

1634. [7, 7, 11, 12] - 2个解:

1.  $11 + 12 + 7 / 7 = 24$

2.  $7 * (12 - 7) - 11 = 24$

1635. [7, 7, 11, 13] - 6个解:

1.  $(7 - 11) * (7 - 13) = 24$

2.  $(11 - 7) * (13 - 7) = 24$

3.  $13 + 7 * 11 / 7 = 24$

4.  $11 + 7 * 13 / 7 = 24$

5.  $7 + 11 + 13 - 7 = 24$

6.  $7 * (11 + 13) / 7 = 24$

1636. [7, 7, 12, 12] - 4个解:

1.  $12 * (7 + 7 - 12) = 24$

2.  $12 + 7 * 12 / 7 = 24$

3.  $7 + 12 + 12 - 7 = 24$

4.  $7 * (12 + 12) / 7 = 24$

1637. [7, 7, 12, 13] - 2个解:

1.  $7 * 7 - (12 + 13) = 24$

2.  $12 + 13 - 7 / 7 = 24$

1638. [7, 7, 13, 13] - 无解

1639. [7, 8, 8, 8] - 无解

1640. [7, 8, 8, 9] - 2个解:

1.  $8 - 8 * (7 - 9) = 24$

2.  $8 + 8 * (9 - 7) = 24$

1641. [7, 8, 8, 10] - 1个解:

1.  $8 * 10 - 7 * 8 = 24$

1642. [7, 8, 8, 11] - 1个解:

1.  $8 * (11 - 7) - 8 = 24$

1643. [7, 8, 8, 12] - 1个解:

1.  $8 * (7 + 8 - 12) = 24$

1644. [7, 8, 8, 13] - 1个解:

1.  $8 * (8 + 13) / 7 = 24$

1645. [7, 8, 9, 9] - 无解

1646. [7, 8, 9, 10] - 1个解:

1.  $8 * 9 / (10 - 7) = 24$

1647. [7, 8, 9, 11] - 无解

1648. [7, 8, 9, 12] - 2个解:

1.  $12 * (7 + 9) / 8 = 24$

2.  $8 * (9 + 12) / 7 = 24$

1649. [7, 8, 9, 13] - 1个解:

1.  $8 * (7 + 9 - 13) = 24$

1650. [7, 8, 10, 10] - 2个解:

1.  $10 - 7 * (8 - 10) = 24$

2.  $10 + 7 * (10 - 8) = 24$

1651. [7, 8, 10, 11] - 1个解:

1.  $8 * (10 + 11) / 7 = 24$

1652. [7, 8, 10, 12] - 无解

1653. [7, 8, 10, 13] - 1个解:

1.  $8 + 10 + 13 - 7 = 24$

1654. [7, 8, 11, 11] - 无解

1655. [7, 8, 11, 12] - 2个解:

1.  $8 * 12 / (11 - 7) = 24$

2.  $8 + 11 + 12 - 7 = 24$

1656. [7, 8, 11, 13] - 11个解:

1.  $13 - 11 * (7 - 8) = 24$

2.  $13 - 11 / (7 - 8) = 24$

3.  $11 - 13 * (7 - 8) = 24$

4.  $11 - 13 / (7 - 8) = 24$

5.  $(8 - 7) * (11 + 13) = 24$

6.  $(11 + 13) / (8 - 7) = 24$

7.  $13 + 11 * (8 - 7) = 24$

8.  $13 + 11 / (8 - 7) = 24$

9.  $11 + 13 * (8 - 7) = 24$

10.  $11 + 13 / (8 - 7) = 24$

11.  $7 * (13 - 8) - 11 = 24$

1657. [7, 8, 12, 12] - 6个解:

1.  $12 - 12 * (7 - 8) = 24$

2.  $12 - 12 / (7 - 8) = 24$

3.  $(8 - 7) * (12 + 12) = 24$

4.  $(12 + 12) / (8 - 7) = 24$

5.  $12 + 12 * (8 - 7) = 24$

6.  $12 + 12 / (8 - 7) = 24$

1658. [7, 8, 12, 13] - 4个解:

1.  $12 * (7 + 8 - 13) = 24$

2.  $(8 - 12) * (7 - 13) = 24$

3.  $(12 - 8) * (13 - 7) = 24$

4.  $7 + 12 + 13 - 8 = 24$

1659. [7, 8, 13, 13] - 无解

1660. [7, 9, 9, 9] - 无解

1661. [7, 9, 9, 10] - 无解

1662. [7, 9, 9, 11] - 无解

1663. [7, 9, 9, 12] - 无解

1664. [7, 9, 9, 13] - 1个解:

1.  $9 + 9 + 13 - 7 = 24$

1665. [7, 9, 10, 10] - 无解

1666. [7, 9, 10, 11] - 3个解:

1.  $11 * (10 - 7) - 9 = 24$

2.  $10 - 7 * (9 - 11) = 24$

3.  $10 + 7 * (11 - 9) = 24$

1667. [7, 9, 10, 12] - 1个解:

1.  $9 + 10 + 12 - 7 = 24$

1668. [7, 9, 10, 13] - 无解

1669. [7, 9, 11, 11] - 1个解:

1.  $9 + 11 + 11 - 7 = 24$

1670. [7, 9, 11, 12] - 2个解:

1.  $12 * (7 + 11) / 9 = 24$

2.  $9 * (11 - 7) - 12 = 24$

1671. [7, 9, 11, 13] - 无解

1672. [7, 9, 12, 12] - 1个解:

1.  $9 * 12 - 7 * 12 = 24$

1673. [7, 9, 12, 13] - 无解

1674. [7, 9, 13, 13] - 5个解:

1.  $(7 - 13) * (9 - 13) = 24$
2.  $(13 - 7) * (13 - 9) = 24$
3.  $(9 - 13) * (7 - 13) = 24$
4.  $(13 - 9) * (13 - 7) = 24$
5.  $7 + 13 + 13 - 9 = 24$

1675. [7, 10, 10, 10] - 无解

1676. [7, 10, 10, 11] - 1个解:

1.  $10 + 10 + 11 - 7 = 24$

1677. [7, 10, 10, 12] - 2个解:

1.  $10 - 7 * (10 - 12) = 24$
2.  $10 + 7 * (12 - 10) = 24$

1678. [7, 10, 10, 13] - 无解

1679. [7, 10, 11, 11] - 无解

1680. [7, 10, 11, 12] - 无解

1681. [7, 10, 11, 13] - 2个解:

1.  $10 - 7 * (11 - 13) = 24$
2.  $10 + 7 * (13 - 11) = 24$

1682. [7, 10, 12, 12] - 2个解:

1.  $12 * (10 - 7) - 12 = 24$
2.  $10 * 12 / (12 - 7) = 24$

1683. [7, 10, 12, 13] - 1个解:

1.  $12 * (7 + 13) / 10 = 24$

1684. [7, 10, 13, 13] - 无解

1685. [7, 11, 11, 11] - 无解

1686. [7, 11, 11, 12] - 无解

1687. [7, 11, 11, 13] - 无解

1688. [7, 11, 12, 12] - 无解

1689. [7, 11, 12, 13] - 无解

1690. [7, 11, 13, 13] - 无解

1691. [7, 12, 12, 12] - 无解

1692. [7, 12, 12, 13] - 2个解:

1.  $12 * 12 / (13 - 7) = 24$
2.  $(12 + 12 * 13) / 7 = 24$

1693. [7, 12, 13, 13] - 无解

1694. [7, 13, 13, 13] - 无解

1695. [8, 8, 8, 8] - 无解

1696. [8, 8, 8, 9] - 无解

1697. [8, 8, 8, 10] - 2个解:

1.  $8 - 8 * (8 - 10) = 24$
2.  $8 + 8 * (10 - 8) = 24$

1698. [8, 8, 8, 11] - 1个解:

1.  $8 * 11 - 8 * 8 = 24$

1699. [8, 8, 8, 12] - 2个解:

1.  $12 * (8 + 8) / 8 = 24$
2.  $8 * (12 - 8) - 8 = 24$

1700. [8, 8, 8, 13] - 1个解:

1.  $8 * (8 + 8 - 13) = 24$

1701. [8, 8, 9, 9] - 无解

1702. [8, 8, 9, 10] - 无解

1703. [8, 8, 9, 11] - 3个解:

1.  $8 * 9 / (11 - 8) = 24$
2.  $8 - 8 * (9 - 11) = 24$
3.  $8 + 8 * (11 - 9) = 24$

1704. [8, 8, 9, 12] - 1个解:

1.  $8 * 12 - 8 * 9 = 24$

1705. [8, 8, 9, 13] - 1个解:

1.  $8 * (13 - 9) - 8 = 24$

1706. [8, 8, 10, 10] - 无解

1707. [8, 8, 10, 11] - 无解

1708. [8, 8, 10, 12] - 2个解:

1.  $8 - 8 * (10 - 12) = 24$

2.  $8 + 8 * (12 - 10) = 24$

1709. [8, 8, 10, 13] - 2个解:

1.  $10 + 13 + 8 / 8 = 24$
2.  $8 * 13 - 8 * 10 = 24$

1710. [8, 8, 11, 11] - 无解

1711. [8, 8, 11, 12] - 1个解:

1.  $11 + 12 + 8 / 8 = 24$

1712. [8, 8, 11, 13] - 6个解:

1.  $13 + 8 * 11 / 8 = 24$
2.  $11 + 8 * 13 / 8 = 24$
3.  $8 + 11 + 13 - 8 = 24$
4.  $8 * (11 + 13) / 8 = 24$
5.  $8 - 8 * (11 - 13) = 24$
6.  $8 + 8 * (13 - 11) = 24$

1713. [8, 8, 12, 12] - 4个解:

1.  $8 * 12 / (12 - 8) = 24$
2.  $12 + 8 * 12 / 8 = 24$
3.  $8 + 12 + 12 - 8 = 24$
4.  $8 * (12 + 12) / 8 = 24$

1714. [8, 8, 12, 13] - 1个解:

1.  $12 + 13 - 8 / 8 = 24$

1715. [8, 8, 13, 13] - 无解

1716. [8, 9, 9, 9] - 无解

1717. [8, 9, 9, 10] - 无解

1718. [8, 9, 9, 11] - 无解

1719. [8, 9, 9, 12] - 1个解:

1.  $8 * 9 / (12 - 9) = 24$

1720. [8, 9, 9, 13] - 无解

1721. [8, 9, 10, 10] - 无解

1722. [8, 9, 10, 11] - 无解

1723. [8, 9, 10, 12] - 2个解:

1.  $12 * (8 + 10) / 9 = 24$
2.  $9 + 10 * 12 / 8 = 24$

1724. [8, 9, 10, 13] - 2 个解:

1.  $8 * 9 / (13 - 10) = 24$
2.  $9 + 10 + 13 - 8 = 24$

1725. [8, 9, 11, 11] - 1 个解:

1.  $11 * (11 - 8) - 9 = 24$

1726. [8, 9, 11, 12] - 1 个解:

1.  $9 + 11 + 12 - 8 = 24$

1727. [8, 9, 11, 13] - 10 个解:

1.  $13 - 11 * (8 - 9) = 24$
2.  $13 - 11 / (8 - 9) = 24$
3.  $11 - 13 * (8 - 9) = 24$
4.  $11 - 13 / (8 - 9) = 24$
5.  $(9 - 8) * (11 + 13) = 24$
6.  $(11 + 13) / (9 - 8) = 24$
7.  $13 + 11 * (9 - 8) = 24$
8.  $13 + 11 / (9 - 8) = 24$
9.  $11 + 13 * (9 - 8) = 24$
10.  $11 + 13 / (9 - 8) = 24$

1728. [8, 9, 12, 12] - 8 个解:

1.  $12 - 12 * (8 - 9) = 24$
2.  $12 - 12 / (8 - 9) = 24$
3.  $(9 - 8) * (12 + 12) = 24$
4.  $(12 + 12) / (9 - 8) = 24$
5.  $12 + 12 * (9 - 8) = 24$
6.  $12 + 12 / (9 - 8) = 24$
7.  $9 * (12 - 8) - 12 = 24$
8.  $8 + 12 * 12 / 9 = 24$

1729. [8, 9, 12, 13] - 2 个解:

1.  $8 * 12 / (13 - 9) = 24$
2.  $8 + 12 + 13 - 9 = 24$

1730. [8, 9, 13, 13] - 无解

1731. [8, 10, 10, 10] - 无解

1732. [8, 10, 10, 11] - 无解

1733. [8, 10, 10, 12] - 1 个解:

1.  $10 + 10 + 12 - 8 = 24$

1734. [8, 10, 10, 13] - 无解

1735. [8, 10, 11, 11] - 1 个解:

1.  $10 + 11 + 11 - 8 = 24$

1736. [8, 10, 11, 12] - 无解

1737. [8, 10, 11, 13] - 无解

1738. [8, 10, 12, 12] - 2 个解:

1.  $12 * (8 + 12) / 10 = 24$
2.  $10 * 12 - 8 * 12 = 24$

1739. [8, 10, 12, 13] - 1 个解:

1.  $10 * 12 / (13 - 8) = 24$

1740. [8, 10, 13, 13] - 1 个解:

1.  $8 + 13 + 13 - 10 = 24$

1741. [8, 11, 11, 11] - 无解

1742. [8, 11, 11, 12] - 无解

1743. [8, 11, 11, 13] - 无解

1744. [8, 11, 12, 12] - 1 个解:

1.  $12 * (11 - 8) - 12 = 24$

1745. [8, 11, 12, 13] - 无解

1746. [8, 11, 13, 13] - 无解

1747. [8, 12, 12, 12] - 无解

1748. [8, 12, 12, 13] - 无解

1749. [8, 12, 13, 13] - 无解

1750. [8, 13, 13, 13] - 无解

1751. [9, 9, 9, 9] - 无解

1752. [9, 9, 9, 10] - 无解

1753. [9, 9, 9, 11] - 无解

1754. [9, 9, 9, 12] - 1 个解:

1.  $12 * (9 + 9) / 9 = 24$

1755. [9, 9, 9, 13] - 无解

1756. [9, 9, 10, 10] - 无解

1757. [9, 9, 10, 11] - 无解

1758. [9, 9, 10, 12] - 无解

1759. [9, 9, 10, 13] - 1 个解:

1.  $10 + 13 + 9 / 9 = 24$

1760. [9, 9, 11, 11] - 无解

1761. [9, 9, 11, 12] - 2 个解:

1.  $11 + 12 + 9 / 9 = 24$
2.  $11 * (12 - 9) - 9 = 24$

1762. [9, 9, 11, 13] - 4 个解:

1.  $13 + 9 * 11 / 9 = 24$
2.  $11 + 9 * 13 / 9 = 24$
3.  $9 + 11 + 13 - 9 = 24$
4.  $9 * (11 + 13) / 9 = 24$

1763. [9, 9, 12, 12] - 3 个解:

1.  $12 + 9 * 12 / 9 = 24$
2.  $9 + 12 + 12 - 9 = 24$
3.  $9 * (12 + 12) / 9 = 24$

1764. [9, 9, 12, 13] - 2 个解:

1.  $12 + 13 - 9 / 9 = 24$
2.  $9 * (13 - 9) - 12 = 24$

1765. [9, 9, 13, 13] - 无解

1766. [9, 10, 10, 10] - 无解

1767. [9, 10, 10, 11] - 无解

1768. [9, 10, 10, 12] - 无解

1769. [9, 10, 10, 13] - 1 个解:

1.  $10 + 10 + 13 - 9 = 24$

1770. [9, 10, 11, 11] - 无解

1771. [9, 10, 11, 12] - 2 个解:

1.  $12 * (9 + 11) / 10 = 24$
2.  $10 + 11 + 12 - 9 = 24$

1772. [9, 10, 11, 13] - 11 个解:

1.  $13 - 11 * (9 - 10) = 24$
2.  $13 - 11 / (9 - 10) = 24$
3.  $11 - 13 * (9 - 10) = 24$

4.  $11 - 13 / (9 - 10) = 24$
5.  $(10 - 9) * (11 + 13) = 24$
6.  $(11 + 13) / (10 - 9) = 24$
7.  $13 + 11 * (10 - 9) = 24$
8.  $13 + 11 / (10 - 9) = 24$
9.  $11 + 13 * (10 - 9) = 24$
10.  $11 + 13 / (10 - 9) = 24$
11.  $11 * (13 - 10) - 9 = 24$

1773.  $[9, 10, 12, 12]$  - 6个解:

1.  $12 - 12 * (9 - 10) = 24$
2.  $12 - 12 / (9 - 10) = 24$
3.  $(10 - 9) * (12 + 12) = 24$
4.  $(12 + 12) / (10 - 9) = 24$
5.  $12 + 12 * (10 - 9) = 24$
6.  $12 + 12 / (10 - 9) = 24$

1774.  $[9, 10, 12, 13]$  - 1个解:

1.  $9 + 12 + 13 - 10 = 24$

1775.  $[9, 10, 13, 13]$  - 无解

1776.  $[9, 11, 11, 11]$  - 1个解:

1.  $11 + 11 + 11 - 9 = 24$

1777.  $[9, 11, 11, 12]$  - 无解

1778.  $[9, 11, 11, 13]$  - 无解

1779.  $[9, 11, 12, 12]$  - 1个解:

1.  $11 * 12 - 9 * 12 = 24$

1780.  $[9, 11, 12, 13]$  - 1个解:

1.  $12 * (9 + 13) / 11 = 24$

1781.  $[9, 11, 13, 13]$  - 1个解:

1.  $9 + 13 + 13 - 11 = 24$

1782.  $[9, 12, 12, 12]$  - 1个解:

1.  $12 * (12 - 9) - 12 = 24$

1783.  $[9, 12, 12, 13]$  - 无解

1784.  $[9, 12, 13, 13]$  - 无解

1785.  $[9, 13, 13, 13]$  - 无解

1786.  $[10, 10, 10, 10]$  - 无解

1787.  $[10, 10, 10, 11]$  - 无解

1788.  $[10, 10, 10, 12]$  - 1个解:

1.  $12 * (10 + 10) / 10 = 24$

1789.  $[10, 10, 10, 13]$  - 1个解:

1.  $10 + 13 + 10 / 10 = 24$

1790.  $[10, 10, 11, 11]$  - 无解

1791.  $[10, 10, 11, 12]$  - 1个解:

1.  $11 + 12 + 10 / 10 = 24$

1792.  $[10, 10, 11, 13]$  - 4个解:

1.  $13 + 10 * 11 / 10 = 24$
2.  $11 + 10 * 13 / 10 = 24$
3.  $10 + 11 + 13 - 10 = 24$
4.  $10 * (11 + 13) / 10 = 24$

1793.  $[10, 10, 12, 12]$  - 3个解:

1.  $12 + 10 * 12 / 10 = 24$
2.  $10 + 12 + 12 - 10 = 24$
3.  $10 * (12 + 12) / 10 = 24$

1794.  $[10, 10, 12, 13]$  - 1个解:

1.  $12 + 13 - 10 / 10 = 24$

1795.  $[10, 10, 13, 13]$  - 无解

1796.  $[10, 11, 11, 11]$  - 无解

1797.  $[10, 11, 11, 12]$  - 1个解:

1.  $11 + 11 + 12 - 10 = 24$

1798.  $[10, 11, 11, 13]$  - 11个解:

1.  $13 - 11 * (10 - 11) = 24$
2.  $13 - 11 / (10 - 11) = 24$
3.  $11 - 13 * (10 - 11) = 24$
4.  $11 - 13 / (10 - 11) = 24$
5.  $(11 - 10) * (11 + 13) = 24$
6.  $(11 + 13) / (11 - 10) = 24$
7.  $13 + 11 * (11 - 10) = 24$
8.  $13 + 11 / (11 - 10) = 24$
9.  $11 + 13 * (11 - 10) = 24$
10.  $11 + 13 / (11 - 10) = 24$
11.  $10 + 13 + 11 / 11 = 24$

1799.  $[10, 11, 12, 12]$  - 7个解:

1.  $12 - 12 * (10 - 11) = 24$

2.  $12 - 12 / (10 - 11) = 24$

3.  $(11 - 10) * (12 + 12) = 24$

4.  $(12 + 12) / (11 - 10) = 24$

5.  $12 + 12 * (11 - 10) = 24$

6.  $12 + 12 / (11 - 10) = 24$

7.  $12 * (10 + 12) / 11 = 24$

1800.  $[10, 11, 12, 13]$  - 1个解:

1.  $10 + 12 + 13 - 11 = 24$

1801.  $[10, 11, 13, 13]$  - 无解

1802.  $[10, 12, 12, 12]$  - 1个解:

1.  $12 * 12 - 10 * 12 = 24$

1803.  $[10, 12, 12, 13]$  - 2个解:

1.  $10 + 13 + 12 / 12 = 24$
2.  $12 * (13 - 10) - 12 = 24$

1804.  $[10, 12, 13, 13]$  - 1个解:

1.  $10 + 13 + 13 - 12 = 24$

1805.  $[10, 13, 13, 13]$  - 1个解:

1.  $10 + 13 + 13 / 13 = 24$

1806.  $[11, 11, 11, 11]$  - 无解

1807.  $[11, 11, 11, 12]$  - 2个解:

1.  $12 * (11 + 11) / 11 = 24$
2.  $11 + 12 + 11 / 11 = 24$

1808.  $[11, 11, 11, 13]$  - 4个解:

1.  $13 + 11 * 11 / 11 = 24$
2.  $11 * (11 + 13) / 11 = 24$
3.  $11 + 11 * 13 / 11 = 24$
4.  $11 + 11 + 13 - 11 = 24$

1809.  $[11, 11, 12, 12]$  - 3个解:

1.  $12 + 11 * 12 / 11 = 24$
2.  $11 + 12 + 12 - 11 = 24$
3.  $11 * (12 + 12) / 11 = 24$

1810.  $[11, 11, 12, 13]$  - 11个解:

1.  $12 + 13 - 11 / 11 = 24$
2.  $13 - 11 * (11 - 12) = 24$
3.  $13 - 11 / (11 - 12) = 24$
4.  $11 - 13 * (11 - 12) = 24$
5.  $11 - 13 / (11 - 12) = 24$
6.  $(12 - 11) * (11 + 13) = 24$

7.  $(11 + 13) / (12 - 11) = 24$
8.  $13 + 11 * (12 - 11) = 24$
9.  $13 + 11 / (12 - 11) = 24$
10.  $11 + 13 * (12 - 11) = 24$
11.  $11 + 13 / (12 - 11) = 24$

1811.  $[11, 11, 13, 13]$  - 无解

1812.  $[11, 12, 12, 12]$  - 8 个解:

1.  $12 - 12 * (11 - 12) = 24$
2.  $12 - 12 / (11 - 12) = 24$
3.  $(12 - 11) * (12 + 12) = 24$
4.  $(12 + 12) / (12 - 11) = 24$
5.  $12 + 12 * (12 - 11) = 24$
6.  $12 + 12 / (12 - 11) = 24$
7.  $(12 + 12) * (12 - 11) = 24$
8.  $11 + 12 + 12 / 12 = 24$

1813.  $[11, 12, 12, 13]$  - 5 个解:

1.  $12 * 13 - 11 * 12 = 24$
2.  $13 + 11 * 12 / 12 = 24$
3.  $12 * (11 + 13) / 12 = 24$
4.  $11 + 12 + 13 - 12 = 24$
5.  $11 + 12 * 13 / 12 = 24$

1814.  $[11, 12, 13, 13]$  - 12 个解:

1.  $(11 + 13) * (13 - 12) = 24$
2.  $(11 + 13) / (13 - 12) = 24$
3.  $13 - 11 * (12 - 13) = 24$
4.  $13 - 11 / (12 - 13) = 24$
5.  $11 - 13 * (12 - 13) = 24$
6.  $11 - 13 / (12 - 13) = 24$
7.  $(13 - 12) * (11 + 13) = 24$
8.  $13 + 11 * (13 - 12) = 24$
9.  $13 + 11 / (13 - 12) = 24$
10.  $11 + 13 * (13 - 12) = 24$
11.  $11 + 13 / (13 - 12) = 24$
12.  $11 + 12 + 13 / 13 = 24$

1815.  $[11, 13, 13, 13]$  - 4 个解:

1.  $13 * (11 + 13) / 13 = 24$
2.  $13 + 11 * 13 / 13 = 24$
3.  $11 + 13 + 13 - 13 = 24$
4.  $11 + 13 * 13 / 13 = 24$

1816.  $[12, 12, 12, 12]$  - 3 个解:

1.  $12 * (12 + 12) / 12 = 24$
2.  $12 + 12 * 12 / 12 = 24$
3.  $12 + 12 + 12 - 12 = 24$

1817.  $[12, 12, 12, 13]$  - 7 个解:

1.  $(12 + 12) * (13 - 12) = 24$
2.  $(12 + 12) / (13 - 12) = 24$
3.  $12 + 13 - 12 / 12 = 24$
4.  $12 - 12 * (12 - 13) = 24$
5.  $12 - 12 / (12 - 13) = 24$
6.  $12 + 12 * (13 - 12) = 24$
7.  $12 + 12 / (13 - 12) = 24$

1818.  $[12, 12, 13, 13]$  - 3 个解:

1.  $13 * (12 + 12) / 13 = 24$
2.  $12 + 12 * 13 / 13 = 24$
3.  $12 + 12 + 13 - 13 = 24$

1819.  $[12, 13, 13, 13]$  - 2 个解:

1.  $12 + 13 - 13 / 13 = 24$
2.  $12 * (13 + 13) / 13 = 24$

1820.  $[13, 13, 13, 13]$  - 无解