

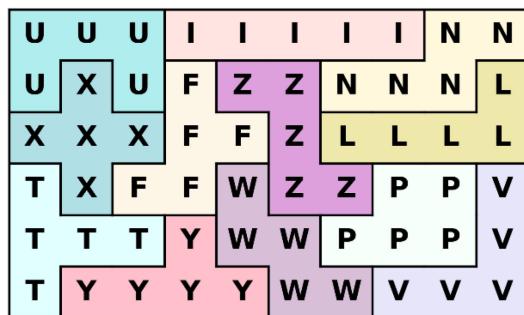
Pentomino Quest Sample

Pentomino Quest Sample

History of the Pentomino

Solomon W. Golomb proposed the concept of polyominoes in 1953. Polyominoes are a general term for pieces made up of multiple connected squares, and are defined according to the number of squares: Dominos (2 pieces), Triominoes (3 pieces), Tetrominoes (4 pieces), pentominoes (5 pieces), etc.

There are 12 pentomino pieces, made up of 5 squares. Each piece is given an alphabet as shown in the diagram below for explanation purposes.



Pentomino puzzle

Martin Gardner introduced the pentomino in a math column in Scientific American in 1965, and it attracted worldwide attention. The box-packing problem using pentominoes is a puzzle in which 12 pieces are packed into rectangular boxes of 6x10, 5x12, 4x15, 3x20, etc.

The solutions to this box-packing problem were actively researched using computers in the 1970s and 1980s. It is known that there are 2,339 solutions for 6x10, 1,010 solutions for 5x12, 368 solutions for 4x15, and 2 solutions for 3x20. However, the number of solutions mentioned here is counted as one if the shape of the solution is the same when it is flipped upside down, flipped left side, or both (same as rotating it 180 degrees).

Pentomino pieces and cases are sold by various manufacturers. This puzzle is said to be effective for brain training. It is a difficult puzzle, and if you are working on it and can't find the answer, you may think that you have made a mistake somewhere and that you will not get the answer if you continue like this, and it will not become a brain training exercise.

Moreover, the actual solution is all possible solutions, including those that are upside down, left-right, and both, so for example, in the case of a 6x10 puzzle, you are looking for the

Pentomino Quest Sample

correct answer not from 2,339 possible solutions, but from four times as many, or 9,356 possible solutions. This makes the puzzle more difficult.

Tetracube

Pentominoes are a puzzle where you join five squares, edges together on a flat surface, and fit 12 combinations into a box.

The "pent" in pentomino stands for 5. If you change this 5 to 4, it becomes a Tetramino. When counted the same way as Pentominoes, Tetraminoes have five different pieces. Two sets of Tetramino pieces can fit into a 5X8 or 4X10 box.

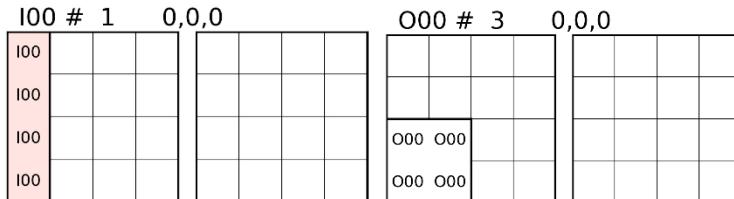
Tetrominoes are combinations arranged on a flat surface, but when arranged in a three-dimensional space, three new pieces are created. When these three pieces are added, the result is called a Tetracube. A Tetracube has 8 pieces.

The eight pieces of Tetracubes can fit into a 4X4X2 box, and there are 695 possible solutions.

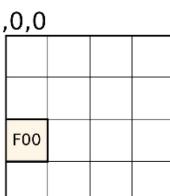
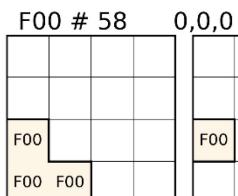
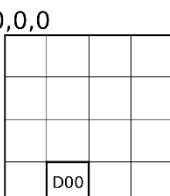
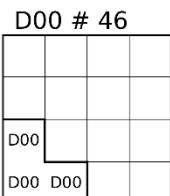
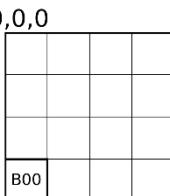
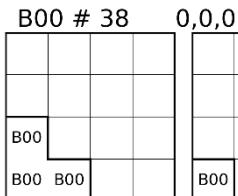
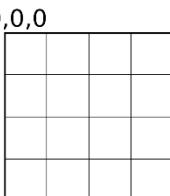
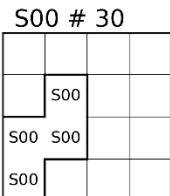
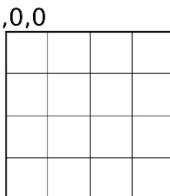
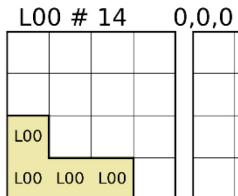
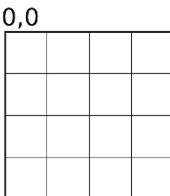
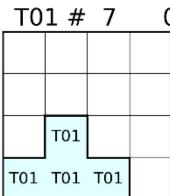
Tetracubes pieces

The eight pieces of a tetracube are shown below. I, O, T, L, and S are the five Tetromino pieces, and B, D, and F are the additional pieces to the tetracube. The additional pieces B, D, and F have the same base, the difference being where the fourth piece is placed.

When B, D, and F are lined up like this, it seems like you can see the difference, but if they are placed facing in different directions it becomes difficult to tell them apart.



Pentomino Quest Sample



Tetracube Packing Problem

Tetracube has 8 pieces, so 32 cubes, so it can be packed in 4X4X2 and 8X2X2 boxes. In this book, we use 4X4X2. When creating the problem set, we search for all solutions including mirror images, but when the shape of 4X4X2 is rotated horizontally, the shape matches every 90 degrees, so the mirror image in that direction is 4 times larger.

In other directions, upside down and left to right, it is doubled, so the total is 16 times larger. The solution is found using Python modified to look like Tetracube, and the solution was found within 1 minute. It is overwhelmingly faster than pentominoes.

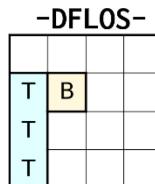
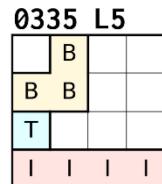
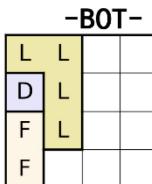
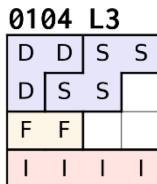
The difference in the number of pieces, 12 and 8, works as exponents, so we think that this is the difference.

By the way, there were 11,120 solutions, and the official number of answers was 695.

Pentomino Quest Sample

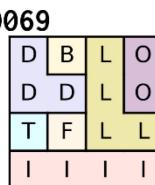
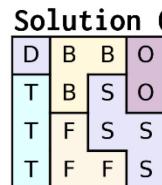
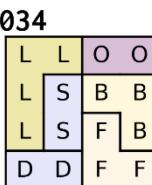
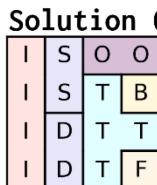
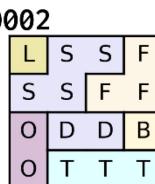
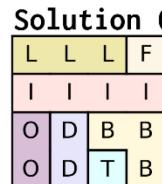
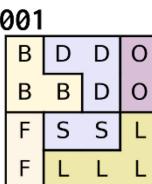
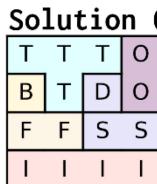
Example problem

Two example problems are shown below. L3 and L5 are the difficulty levels and the number of pieces that have not been stored. The alphabet on the right are the names of the pieces that have not been stored.



Tetracube 3D 4X4X2 Solution

An example answer is shown below. The solution with the same two-division line (horizontal or vertical) on the left and right is the solution where two 2X2X4s are made and stored, which is a common solution with 8X2X2.



Now, please enjoy Labyrinth Pentomino.

Pentomino 2D 6X10 Edition Problems

Pentomino 6X10

0001 L1

-V-



Pentomino 6X10

0091 L3

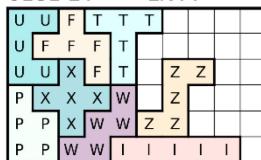
-TVZ-



Pentomino 6X10

0181 L4

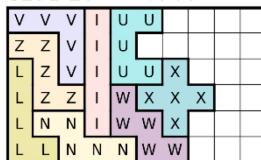
-LNVY-



Pentomino 6X10

0271 L4

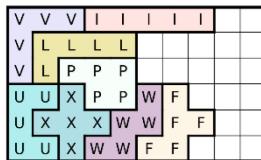
-FPTY-



Pentomino 6X10

0361 L4

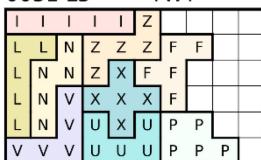
-NTYZ-



Pentomino 6X10

0031 L3

-TWY-



Pentomino 6X10

0121 L3

-TUX-



Pentomino 6X10

0211 L4

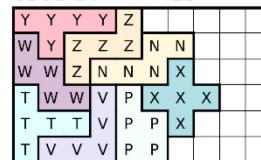
-NPUY-



Pentomino 6X10

0301 L4

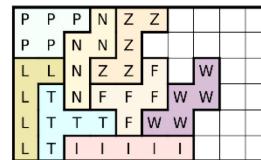
-FILU-



Pentomino 6X10

0421 L5

-UVXY-



Pentomino 6X10

0061 L3

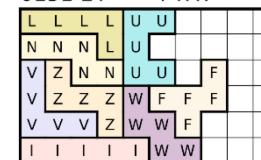
-IVZ-



Pentomino 6X10

0151 L4

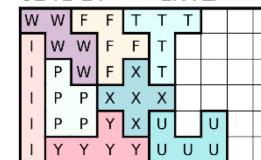
-PTXY-



Pentomino 6X10

0241 L4

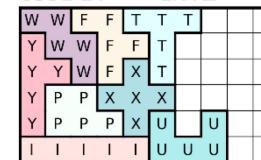
-LNVZ-



Pentomino 6X10

0331 L4

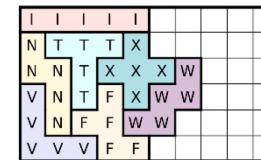
-LNVZ-



Pentomino 6X10

0421 L5

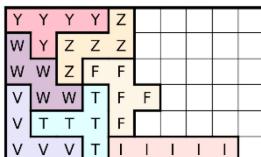
-LPUYZ-



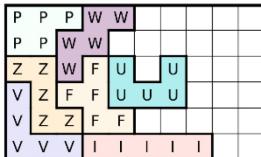
Pentomino 6X10
0451 L5 -ITUXZ-



Pentomino 6X10
0541 L5 -LNUUX-



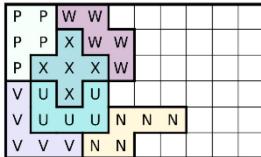
Pentomino 6X10
0631 L5 -LNTXY-



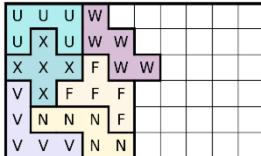
Pentomino 6X10
0721 L6 -ILTWXYZ-



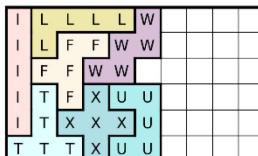
Pentomino 6X10
0811 L6 -FILTYZ-



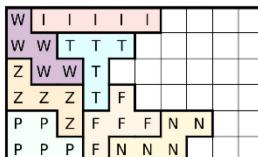
Pentomino 6X10
0901 L6 -ILPTYZ-



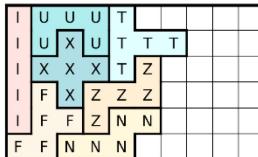
Pentomino 6X10
0481 L5 -NPVYZ-



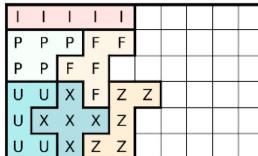
Pentomino 6X10
0571 L5 -LUVXY-



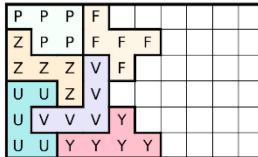
Pentomino 6X10
0661 L5 -LPWY-



Pentomino 6X10
0751 L6 -LNTVWY-



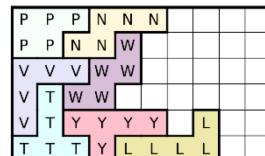
Pentomino 6X10
0841 L6 -ILNTWX-



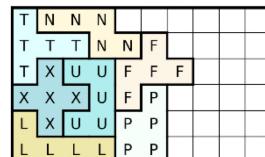
Pentomino 6X10
0931 L6 -NTUWXY-



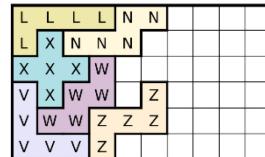
Pentomino 6X10
0511 L5 -FIUXZ-



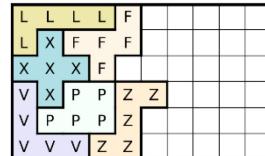
Pentomino 6X10
0601 L5 -IVWYZ-



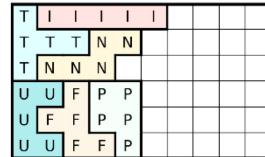
Pentomino 6X10
0691 L6 -FIPTUY-



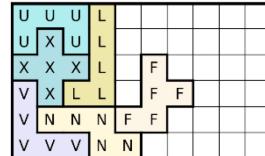
Pentomino 6X10
0781 L6 -INTUWY-



Pentomino 6X10
0871 L6 -LVWXYZ-



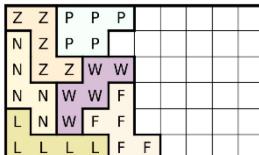
Pentomino 6X10
0961 L6 -IPTWYZ-



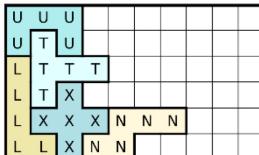
Pentomino 6X10
0991 L6 -ILPVWZ-



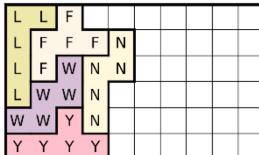
Pentomino 6X10
1081 L6 -ITUVXY-



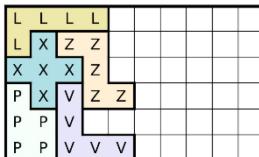
Pentomino 6X10
1171 L7 -FIPVWYZ-



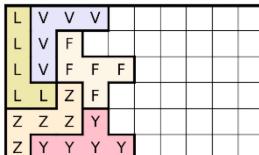
Pentomino 6X10
1261 L7 -IPTUVXZ-



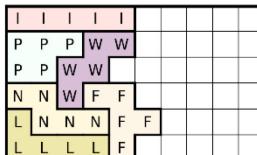
Pentomino 6X10
1351 L7 -FINTUWY-



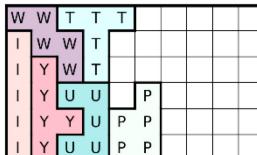
Pentomino 6X10
1441 L7 -INPTUWX-



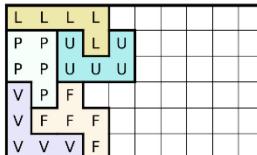
Pentomino 6X10
1021 L6 -TUVXYZ-



Pentomino 6X10
1111 L6 -FLNVXZ-



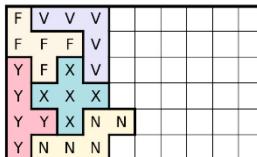
Pentomino 6X10
1201 L7 -INTWXYZ-



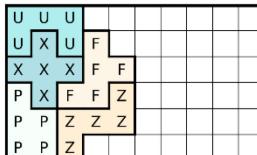
Pentomino 6X10
1291 L7 -ITUWXYZ-



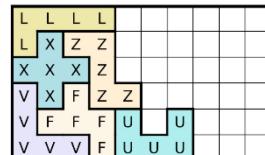
Pentomino 6X10
1381 L7 -ILPTUWZ-



Pentomino 6X10
1471 L7 -ILNTVWY-



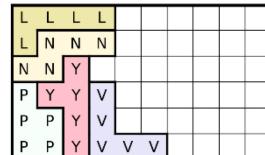
Pentomino 6X10
1051 L6 -INPTWY-



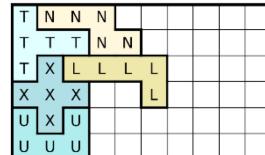
Pentomino 6X10
1141 L6 -ILNWXY-



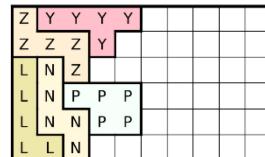
Pentomino 6X10
1231 L7 -FITUWXZ-



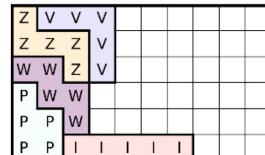
Pentomino 6X10
1321 L7 -FIPVWYZ-

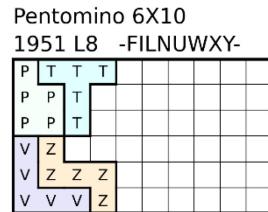
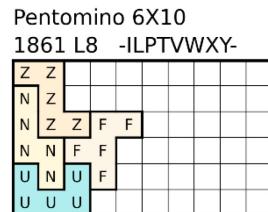
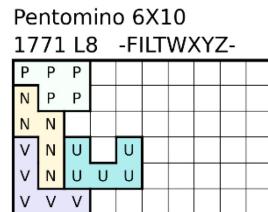
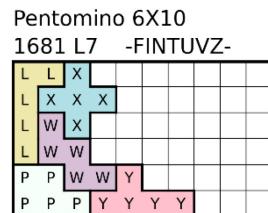
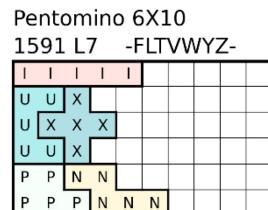
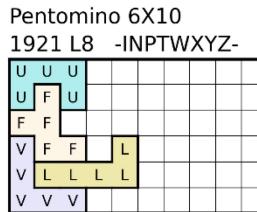
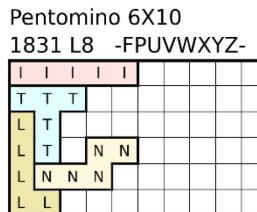
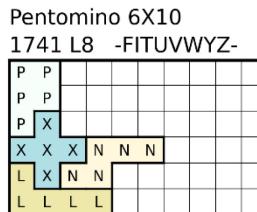
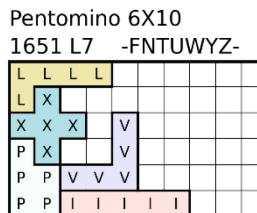
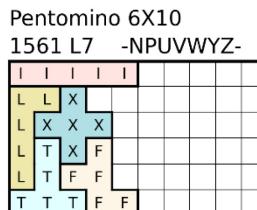
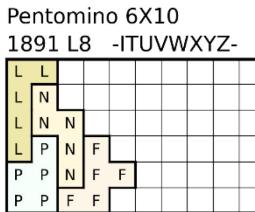
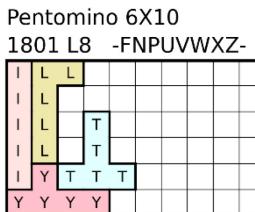
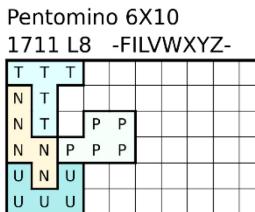
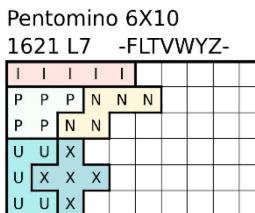
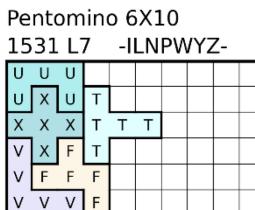


Pentomino 6X10
1411 L7 -FITUVWX-

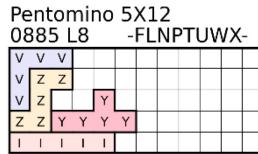
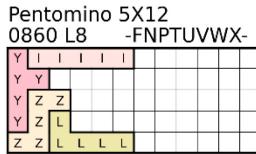
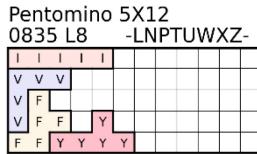
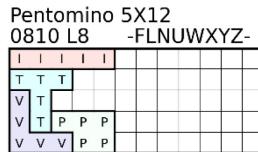
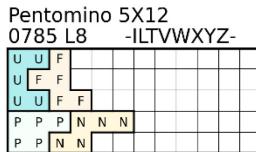
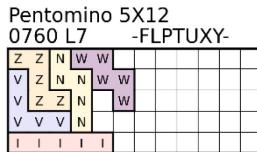
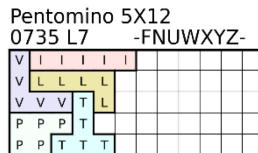
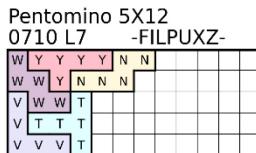
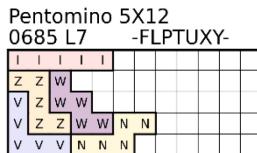
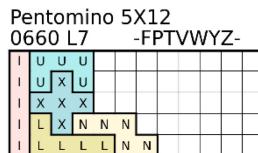
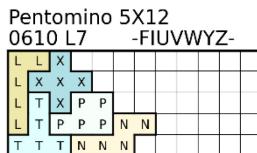
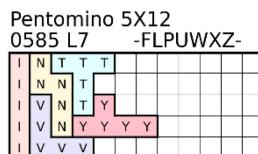
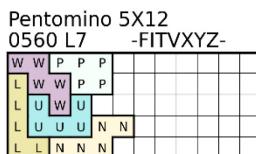
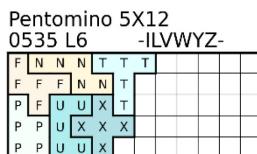


Pentomino 6X10
1501 L7 -FLNTUXY-





End of Problem

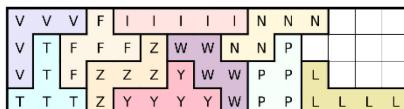


End of Problem

Pentomino 2D 4X15 Edition**Problems**

Pentomino 4X15

0010 L2 -UX-



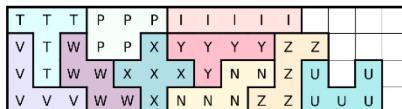
Pentomino 4X15

0020 L2 -UX-



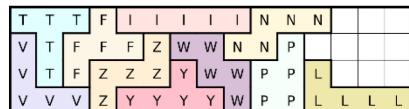
Pentomino 4X15

0030 L2 -FL-



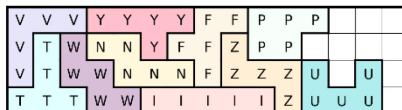
Pentomino 4X15

0040 L2 -UX-



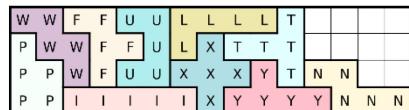
Pentomino 4X15

0050 L2 -LX-



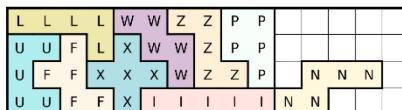
Pentomino 4X15

0060 L2 -VZ-



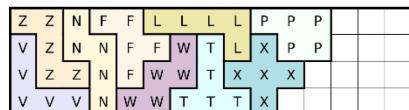
Pentomino 4X15

0070 L3 -TVY-



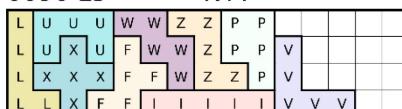
Pentomino 4X15

0080 L3 -IUY-



Pentomino 4X15

0090 L3 -NTY-



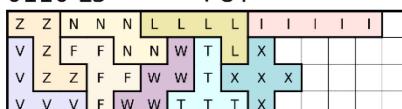
Pentomino 4X15

0100 L3 -TUY-



Pentomino 4X15

0110 L3 -PUY-

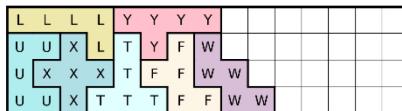


Pentomino 4X15

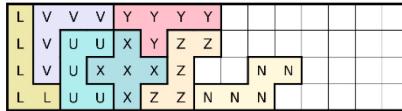
0120 L5 -INPVZ-



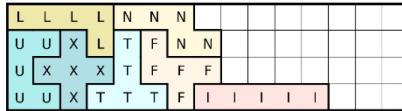
Pentomino 4X15
0130 L5 -INPVZ-



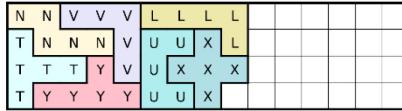
Pentomino 4X15
0150 L5 -FIPTW-



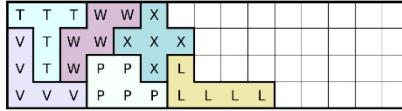
Pentomino 4X15
0170 L5 -PVWYZ-



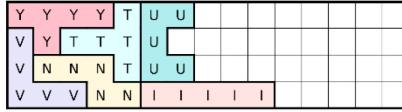
Pentomino 4X15
0190 L5 -FIPWZ-



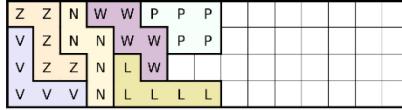
Pentomino 4X15
0210 L6 -FINUYZ-



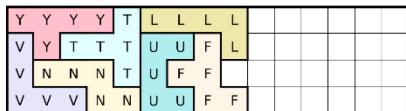
Pentomino 4X15
0230 L6 -FLPWXZ-



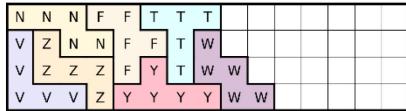
Pentomino 4X15
0250 L6 -FITUXY-



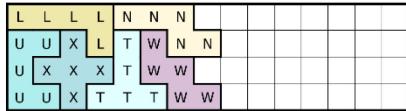
Pentomino 4X15
0140 L5 -IPWXZ-



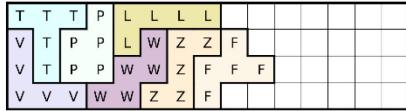
Pentomino 4X15
0160 L5 -ILPUX-



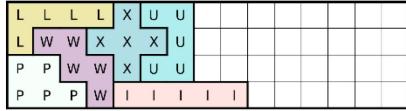
Pentomino 4X15
0180 L6 -FIPVYZ-



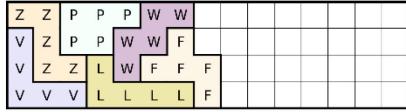
Pentomino 4X15
0200 L5 -INUXY-



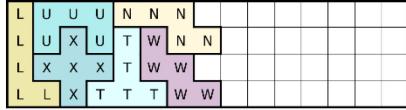
Pentomino 4X15
0220 L6 -FNTVYZ-



Pentomino 4X15
0240 L6 -INTUXY-



Pentomino 4X15
0260 L6 -FIPVYZ-



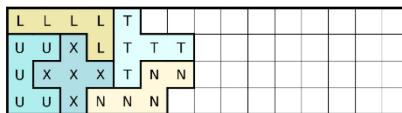
Pentomino 4X15

0270 L6 -IUWXYZ-



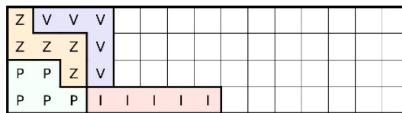
Pentomino 4X15

0290 L7 -FIPVWXYZ-



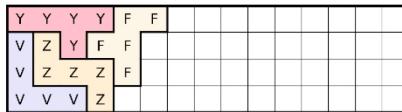
Pentomino 4X15

0310 L8 -FLNTUWXY-



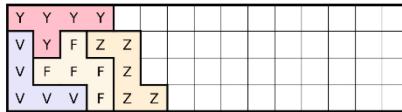
Pentomino 4X15

0330 L8 -ILNPTUWX-



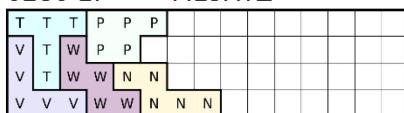
Pentomino 4X15

0350 L8 -ILNPTUWX-



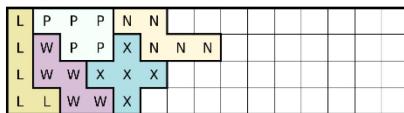
Pentomino 4X15

0280 L7 -FILUXYZ-



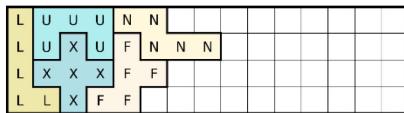
Pentomino 4X15

0300 L7 -FITUVYZ-



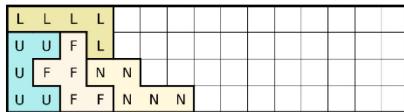
Pentomino 4X15

0320 L7 -IPTVWXYZ-



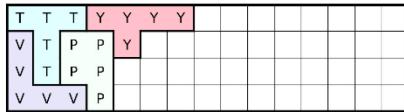
Pentomino 4X15

0340 L8 -IPTVWXYZ-



Pentomino 4X15

0360 L8 -FILNUWXZ-



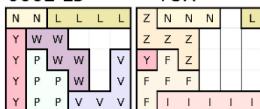
End of Problem

Pentomino 3D 5X6X2 Edition

Problems

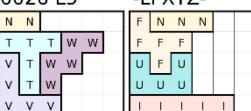
Pentomino 5X6X2
0002 L3

-TUX-



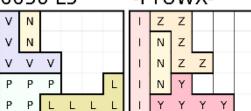
Pentomino 5X6X2
0026 L5

-LPXYZ-



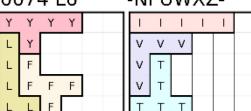
Pentomino 5X6X2
0050 L5

-FTUWX-



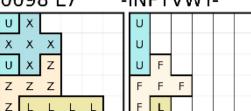
Pentomino 5X6X2
0074 L6

-NPUWXZ-



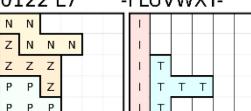
Pentomino 5X6X2
0098 L7

-INPTVWY-



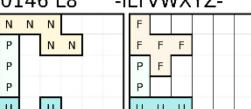
Pentomino 5X6X2
0122 L7

-FLUVWXY-



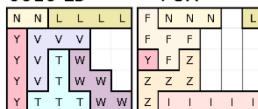
Pentomino 5X6X2
0146 L8

-ILTUVWXYZ-



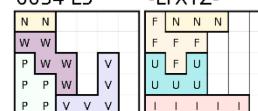
Pentomino 5X6X2
0010 L3

-PUX-



Pentomino 5X6X2
0034 L5

-LTXYZ-



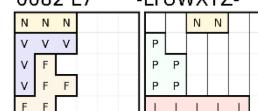
Pentomino 5X6X2
0058 L6

-LNPTVZ-



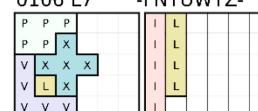
Pentomino 5X6X2
0082 L7

-LTUWXYZ-



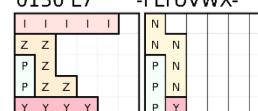
Pentomino 5X6X2
0106 L7

-FNTUWYZ-



Pentomino 5X6X2
0130 L7

-FLTUVWX-



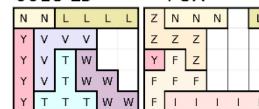
Pentomino 5X6X2
0154 L7

-LPTUWXY-



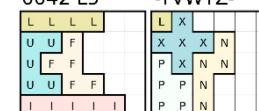
Pentomino 5X6X2
0018 L3

-PUX-



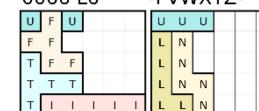
Pentomino 5X6X2
0042 L5

-TUVYZ-



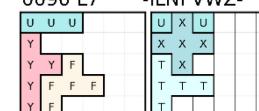
Pentomino 5X6X2
0066 L6

-PVWXYZ-



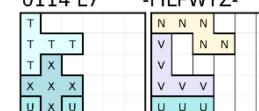
Pentomino 5X6X2
0090 L7

-ILNPVWZ-



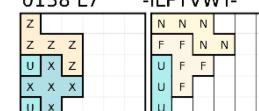
Pentomino 5X6X2
0114 L7

-FILPWYZ-



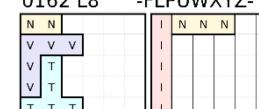
Pentomino 5X6X2
0138 L7

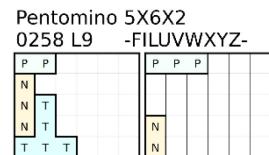
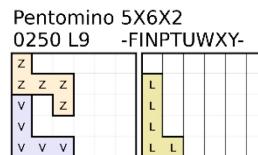
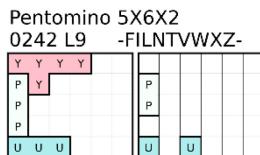
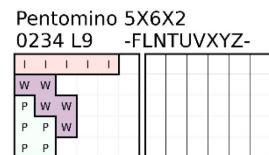
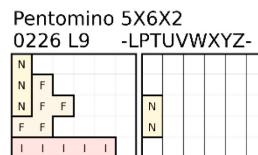
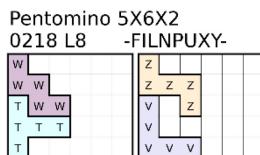
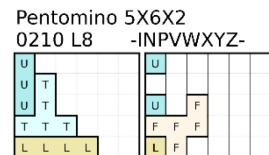
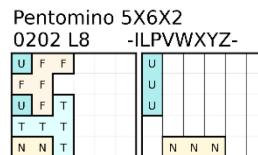
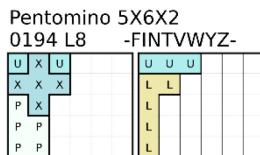
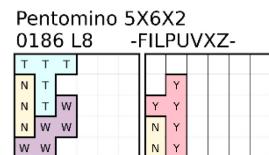
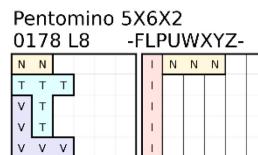
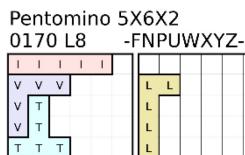
-ILPTVWY-



Pentomino 5X6X2
0162 L8

-FLPUWXYZ-





End of Problem

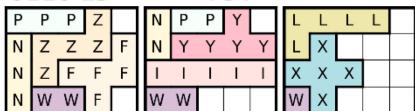
Pentomino 3D 4X5X3 Edition

Problems

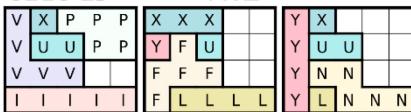
Pentomino 4X5X3
0010 L3 -PWX-



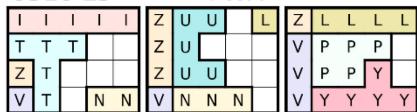
Pentomino 4X5X3
0110 L3 -TUV-



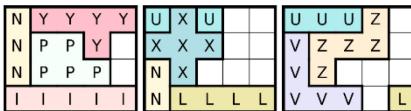
Pentomino 4X5X3
0210 L3 -TWZ-



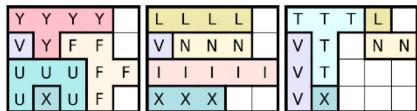
Pentomino 4X5X3
0310 L3 -FWX-



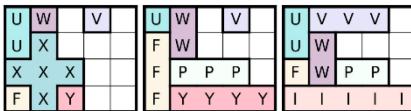
Pentomino 4X5X3
0410 L3 -FTW-



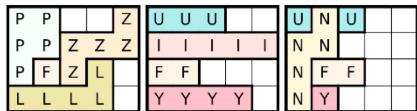
Pentomino 4X5X3
0510 L3 -PWZ-



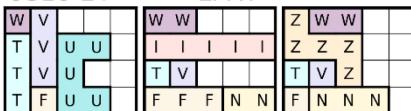
Pentomino 4X5X3
0610 L4 -LNTZ-



Pentomino 4X5X3
0710 L4 -TVWX-



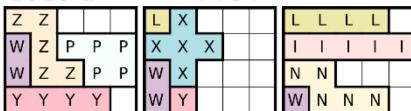
Pentomino 4X5X3
0810 L4 -LPXY-



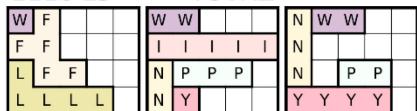
Pentomino 4X5X3
0910 L4 -LPWZ-



Pentomino 4X5X3
1010 L4 -FTUV-



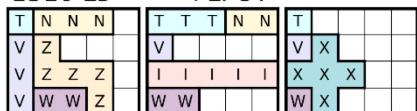
Pentomino 4X5X3
1110 L5 -TUVXZ-



Pentomino 4X5X3
1210 L4 -LPUY-



Pentomino 4X5X3
1310 L5 -FLPUY-



Pentomino 4X5X3
1410 L5 -FLNXZ-



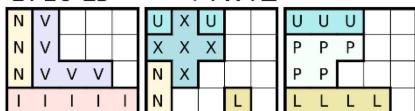
Pentomino 4X5X3
1510 L5 -PUVXZ-



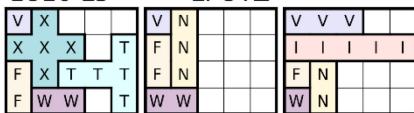
Pentomino 4X5X3
1610 L5 -PVWXZ-



Pentomino 4X5X3
1710 L5 -FTWYZ-



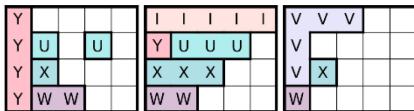
Pentomino 4X5X3
1810 L5 -LPUYZ-



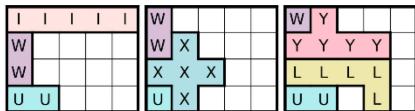
Pentomino 4X5X3
1910 L6 -UVWXYZ-



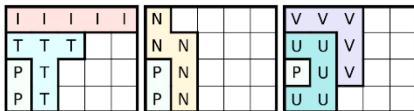
Pentomino 4X5X3
2010 L6 -FLNPTZ-



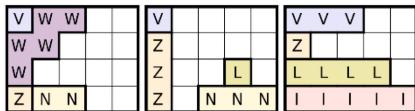
Pentomino 4X5X3
2110 L6 -FNPTVZ-



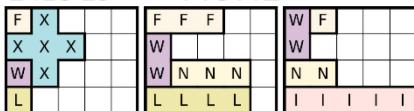
Pentomino 4X5X3
2210 L6 -FLWXYZ-



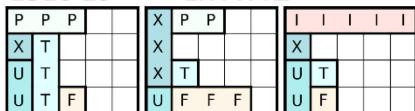
Pentomino 4X5X3
2310 L6 -FPTUXY-



Pentomino 4X5X3
2410 L6 -PTUVYZ-



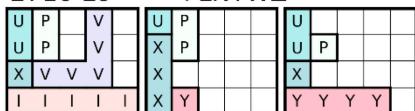
Pentomino 4X5X3
2510 L6 -LNVWXYZ-



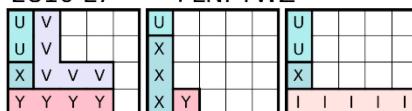
Pentomino 4X5X3
2610 L7 -FLNPVXZ-



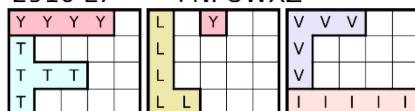
Pentomino 4X5X3
2710 L6 -FLNTWZ-



Pentomino 4X5X3
2810 L7 -FLNPTWZ-



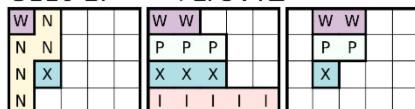
Pentomino 4X5X3
2910 L7 -FNPUWXZ-



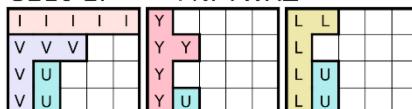
Pentomino 4X5X3
3010 L7 -FNPVWXZ-



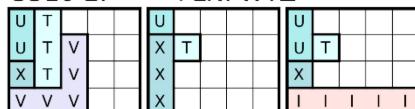
Pentomino 4X5X3
3110 L7 -FLTUVYZ-



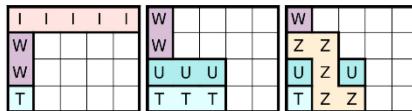
Pentomino 4X5X3
3210 L7 -FNPTWXZ-



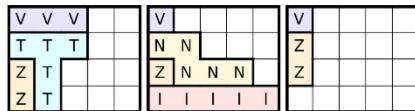
Pentomino 4X5X3
3310 L7 -FLNPWYZ-



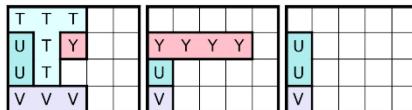
Pentomino 4X5X3
3410 L7 -FLNPVXY-



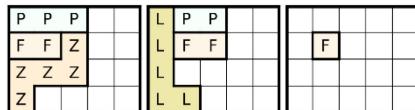
Pentomino 4X5X3
3510 L7 -FLPUWXY-



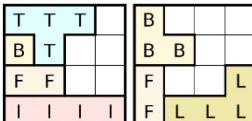
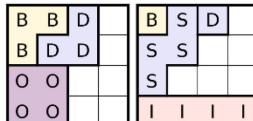
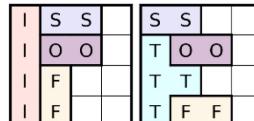
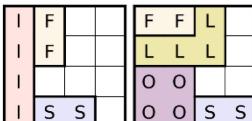
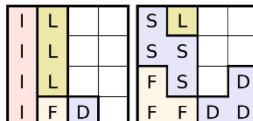
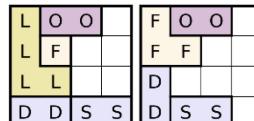
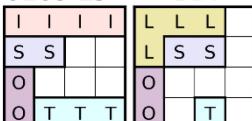
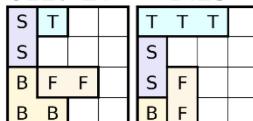
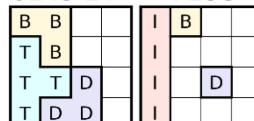
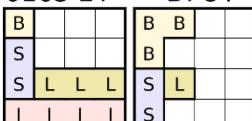
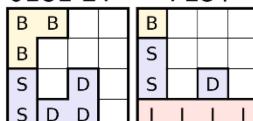
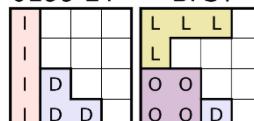
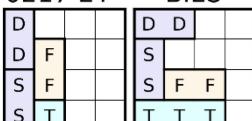
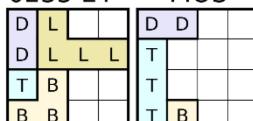
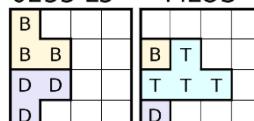
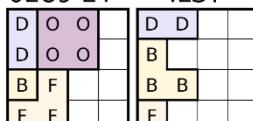
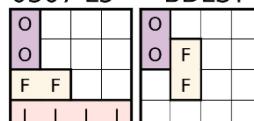
Pentomino 4X5X3
3610 L8 -FILNPWXZ-

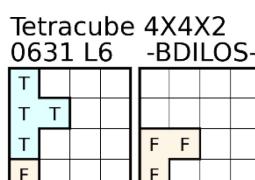
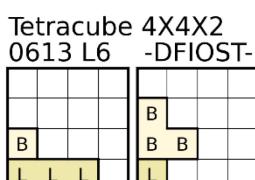
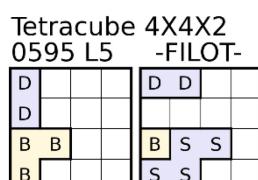
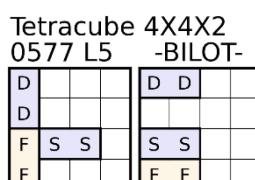
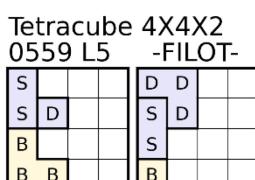
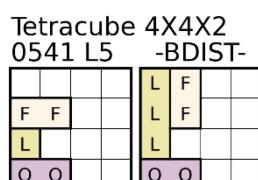
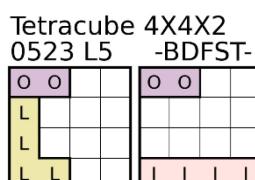
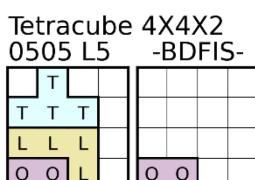
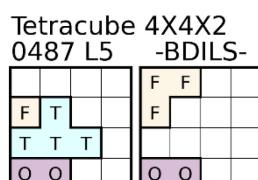
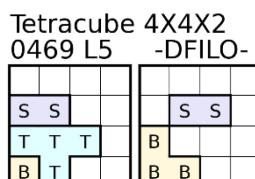
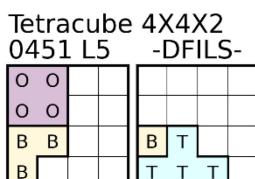
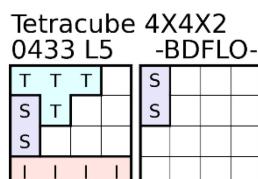
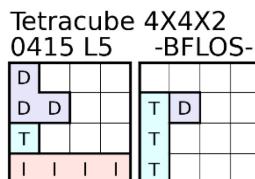
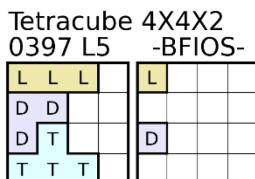
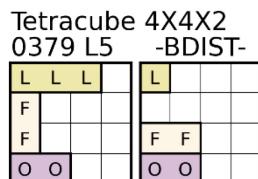
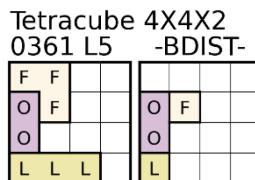
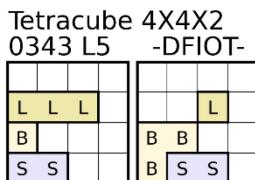
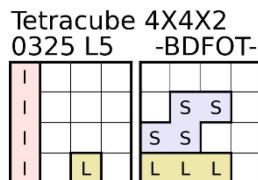


Pentomino 4X5X3
3710 L8 -INTUVWXY-



End of Problem

Tetracube 3D 4X4X2 Edition**Problems**Tetracube 4X4X2
0001 L3 -DOS-Tetracube 4X4X2
0019 L3 -FLT-Tetracube 4X4X2
0037 L3 -BDL-Tetracube 4X4X2
0055 L3 -BDT-Tetracube 4X4X2
0073 L3 -BOT-Tetracube 4X4X2
0091 L3 -BIT-Tetracube 4X4X2
0109 L3 -BDF-Tetracube 4X4X2
0127 L4 -DILO-Tetracube 4X4X2
0145 L4 -FLOS-Tetracube 4X4X2
0163 L4 -DFOT-Tetracube 4X4X2
0181 L4 -FLOT-Tetracube 4X4X2
0199 L4 -BFST-Tetracube 4X4X2
0217 L4 -BILO-Tetracube 4X4X2
0235 L4 -FIOS-Tetracube 4X4X2
0253 L5 -FILOS-Tetracube 4X4X2
0271 L5 -BFIOT-Tetracube 4X4X2
0289 L4 -ILST-Tetracube 4X4X2
0307 L5 -BDLST-

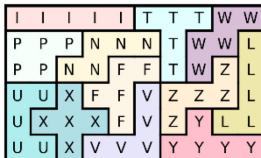


End of Problem

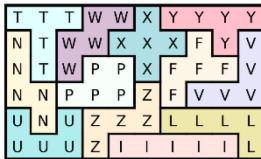
Pentomino 6X10
Solution 1531



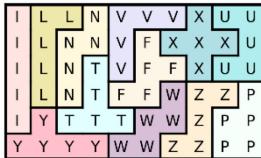
Pentomino 6X10
Solution 1621



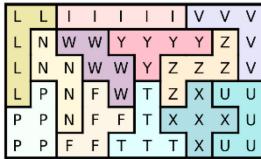
Pentomino 6X10
Solution 1711



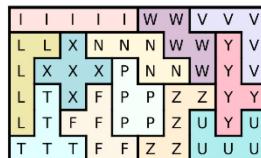
Pentomino 6X10
Solution 1801



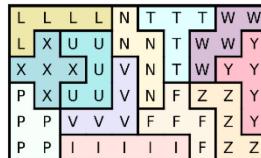
Pentomino 6X10
Solution 1891



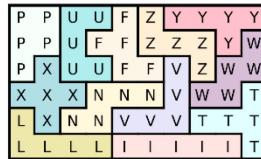
Pentomino 6X10
Solution 1561



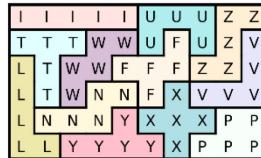
Pentomino 6X10
Solution 1651



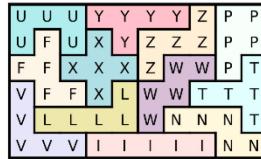
Pentomino 6X10
Solution 1741



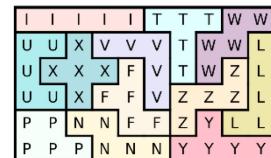
Pentomino 6X10
Solution 1831



Pentomino 6X10
Solution 1921



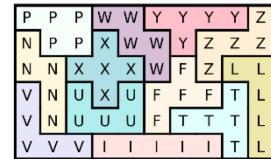
Pentomino 6X10
Solution 1591



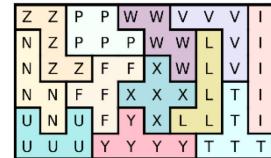
Pentomino 6X10
Solution 1681



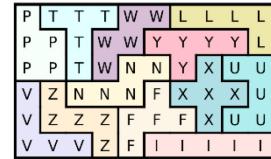
Pentomino 6X10
Solution 1771



Pentomino 6X10
Solution 1861



Pentomino 6X10
Solution 1951



End of Solution

Pentomino 5X12 Solution 0535



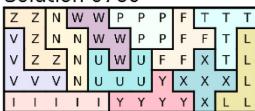
Pentomino 5X12
Solution 0610



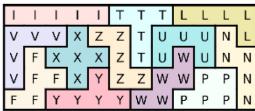
Pentomino 5X12 Solution 0685



Pentomino 5X12
Solution 0760



Pentomino 5X12 Solution 0835



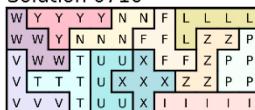
Pentomino 5X12
Solution 0560



Pentomino 5X12
Solution 0635



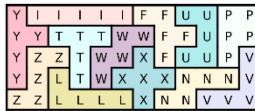
Pentomino 5X12
Solution 0710



Pentomino 5X12
Solution 0785



Pentomino 5X12 Solution 0860



Pentomino 5X12
Solution 0585



Pentomino 5X12
Solution 0660



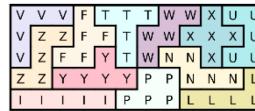
Pentomino 5X12
Solution 0735



Pentomino 5X12
Solution 0810



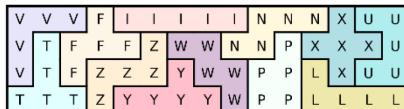
Pentomino 5X12
Solution 0885



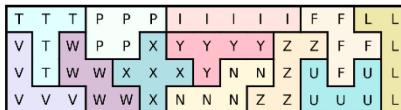
End of Solution

Pentomino 2D 4X15 Edition**Solutions**

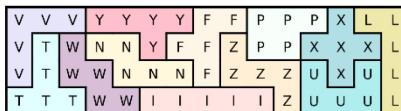
**Pentomino 4X15
Solution 0010**



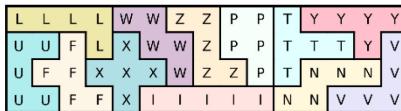
**Pentomino 4X15
Solution 0030**



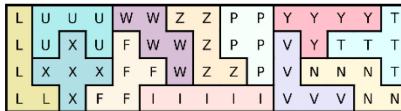
**Pentomino 4X15
Solution 0050**



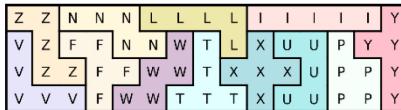
**Pentomino 4X15
Solution 0070**



**Pentomino 4X15
Solution 0090**



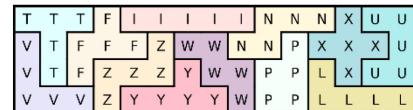
**Pentomino 4X15
Solution 0110**



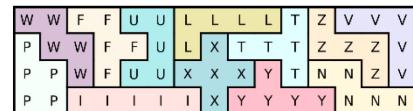
**Pentomino 4X15
Solution 0020**



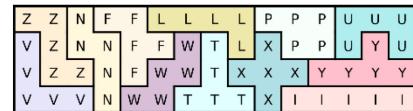
**Pentomino 4X15
Solution 0040**



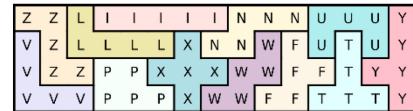
**Pentomino 4X15
Solution 0060**



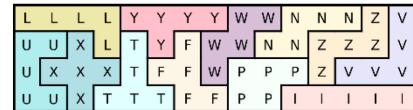
**Pentomino 4X15
Solution 0080**



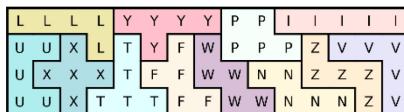
**Pentomino 4X15
Solution 0100**



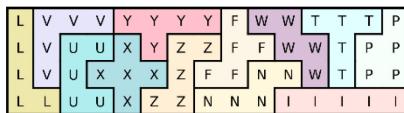
**Pentomino 4X15
Solution 0120**



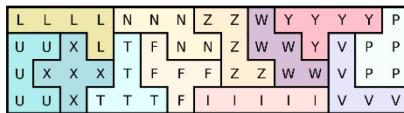
Pentomino 4X15
Solution 0130



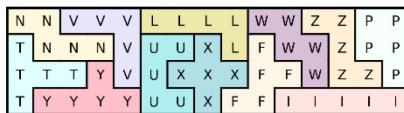
Pentomino 4X15
Solution 0150



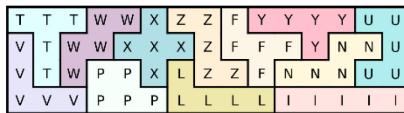
Pentomino 4X15
Solution 0170



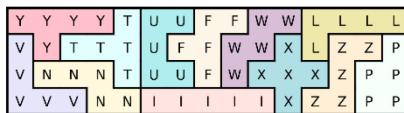
Pentomino 4X15
Solution 0190



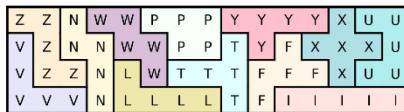
Pentomino 4X15
Solution 0210



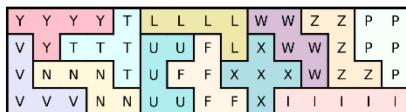
Pentomino 4X15
Solution 0230



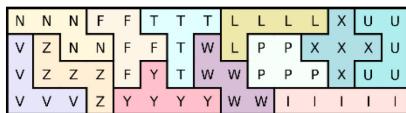
Pentomino 4X15
Solution 0250



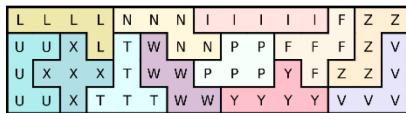
Pentomino 4X15
Solution 0140



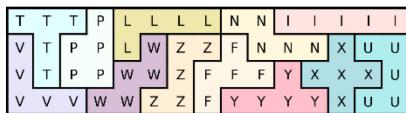
Pentomino 4X15
Solution 0160



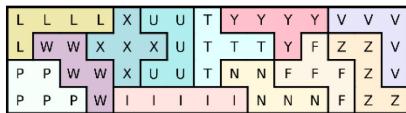
Pentomino 4X15
Solution 0180



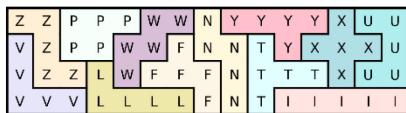
Pentomino 4X15
Solution 0200



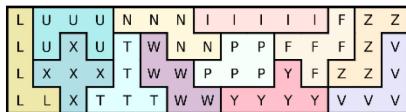
Pentomino 4X15
Solution 0220



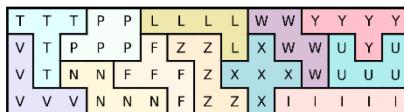
Pentomino 4X15
Solution 0240



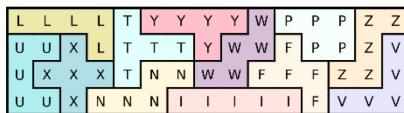
Pentomino 4X15
Solution 0260



Pentomino 4X15
Solution 0270



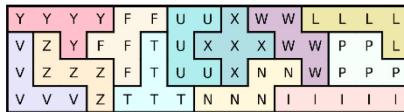
Pentomino 4X15
Solution 0290



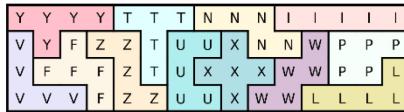
Pentomino 4X15
Solution 0310



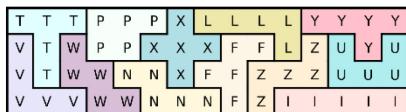
Pentomino 4X15
Solution 0330



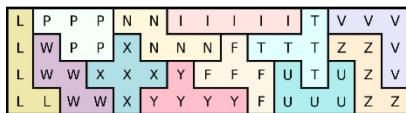
Pentomino 4X15
Solution 0350



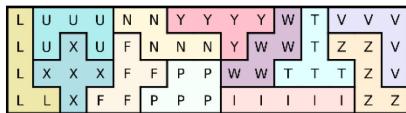
Pentomino 4X15
Solution 0280



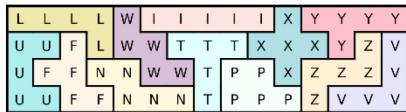
Pentomino 4X15
Solution 0300



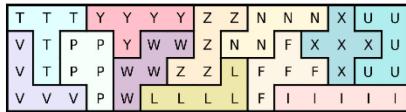
Pentomino 4X15
Solution 0320



Pentomino 4X15
Solution 0340

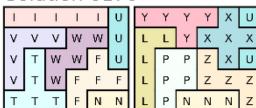


Pentomino 4X15
Solution 0360

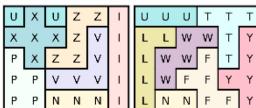


End of Solution

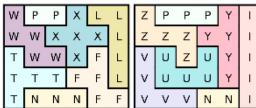
Pentomino 5X6X2
Solution 0170



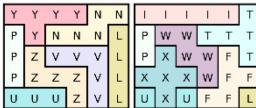
Pentomino 5X6X2
Solution 0194



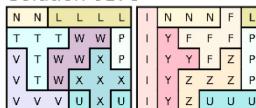
Pentomino 5X6X2
Solution 0218



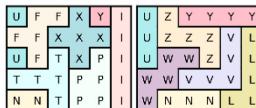
Pentomino 5X6X2
Solution 0242



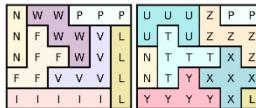
Pentomino 5X6X2
Solution 0178



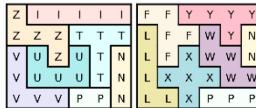
Pentomino 5X6X2
Solution 0202



Pentomino 5X6X2
Solution 0226



Pentomino 5X6X2
Solution 0250



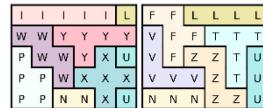
Pentomino 5X6X2
Solution 0186



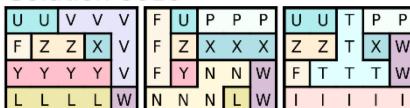
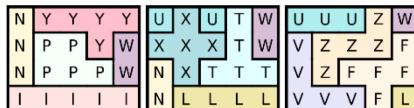
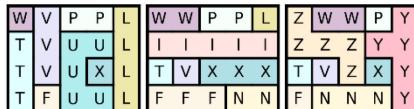
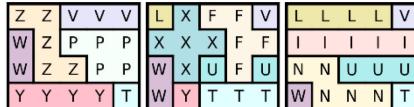
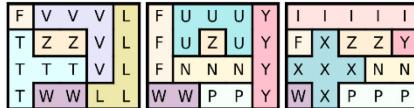
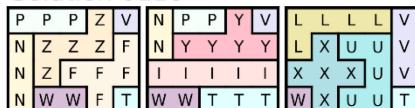
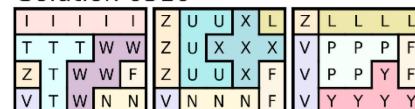
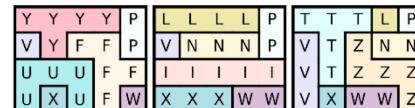
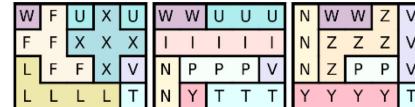
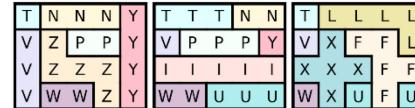
Pentomino 5X6X2
Solution 0210



Pentomino 5X6X2
Solution 0234



End of Solution

Pentomino 3D 4X5X3 Edition**Solutions****Pentomino 4X5X3
Solution 0010****Pentomino 4X5X3
Solution 0210****Pentomino 4X5X3
Solution 0410****Pentomino 4X5X3
Solution 0610****Pentomino 4X5X3
Solution 0810****Pentomino 4X5X3
Solution 1010****Pentomino 4X5X3
Solution 1210****Pentomino 4X5X3
Solution 0110****Pentomino 4X5X3
Solution 0310****Pentomino 4X5X3
Solution 0510****Pentomino 4X5X3
Solution 0710****Pentomino 4X5X3
Solution 0910****Pentomino 4X5X3
Solution 1110****Pentomino 4X5X3
Solution 1310**

Pentomino 4X5X3 Solution 1410

| SOLUTION 2 - C | | | | |
|----------------|---|---|---|---|
| P | P | T | Y | X |
| P | U | T | U | X |
| U | X | Z | Z | Z |
| I | I | T | T | X |
| V | V | V | N | N |
| V | N | N | N | Z |
| V | W | W | F | Z |

Pentomino 4X5X3 Solution 1610

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | I | F | N | N | N | Z | N | N | W | W | Z |
| F | Y | Y | Y | Y | F | P | Y | X | Z | F | P | V | W | W |
| U | U | U | X | Z | U | P | U | X | Z | F | P | V | X | W |
| T | L | L | L | L | T | T | T | X | L | T | P | V | V | V |

Pentomino 4X5X3 Solution 1810

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V | X | Z | Z | L | V | N | Y | Z | L | V | V | V | Z | Z |
| X | X | X | U | T | F | N | Y | U | L | I | I | I | I | I |
| F | X | T | T | T | F | N | Y | U | L | F | N | Y | P | P |
| F | W | W | U | T | W | W | Y | U | L | W | N | P | P | P |

Pentomino 4X5X3 Solution 2010

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Y | T | T | T | F | I | I | I | I | I | V | V | V | N | N | |
| Y | U | T | U | F | Y | U | U | U | U | V | N | N | N | F | |
| Y | X | T | Z | Z | X | X | X | Z | F | V | X | Z | Z | L | |
| Y | W | W | P | P | W | W | P | P | P | W | L | L | L | L | |

Pentomino 4X5X3 Solution 2210

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | I | N | Y | Y | Y | Y | V | V | V | V | L |
| T | T | T | X | W | N | N | X | X | X | U | U | V | X | L |
| P | T | F | W | W | P | N | F | F | F | P | U | V | F | L |
| P | T | W | W | Z | P | N | Z | Z | Z | U | U | Z | L | L |

Pentomino 4X5X3 Solution 2410

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | X | Z | Z | P | F | F | F | P | P | W | F | V | P | P |
| X | X | X | Z | T | W | U | U | U | T | W | U | V | U | T |
| W | X | Y | Z | Z | W | N | N | N | T | N | N | V | V | V |
| L | Y | Y | Y | Y | L | L | L | L | T | I | I | I | I | I |

Pentomino 4X5X3 Solution 2610

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | I | I | U | L | L | L | L | U | L | Z | Z | F |
| W | N | N | N | F | Y | Y | Y | Y | F | U | V | Y | Z | F | |
| W | W | X | N | N | U | X | X | X | F | U | V | X | Z | Z | |
| T | W | W | P | P | T | T | T | P | P | T | V | V | V | P | |

Pentomino 4X5X3 Solution 1510

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | W | W | X | P | F | F | F | P | P | L | F | Z | P | P |
| W | W | X | X | X | I | I | I | I | I | L | T | Z | Z | Z |
| W | Y | U | X | U | N | N | U | U | U | L | T | T | T | Z |
| Y | Y | Y | Y | V | L | N | N | N | V | L | T | V | V | V |

Pentomino 4X5X3 Solution 1710

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | V | Z | Z | T | U | X | U | Z | Y | U | U | U | Z | Z |
| N | V | T | T | T | X | X | X | W | Y | P | P | P | F | Y |
| N | V | V | V | T | N | X | W | W | Y | P | P | F | F | F |
| I | I | I | I | I | N | W | W | L | Y | L | L | L | L | F |

Pentomino 4X5X3 Solution 1910

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | I | I | J | F | N | N | N | Z | N | N | W | W | Z |
| F | Y | Y | Y | Y | Y | Y | F | U | U | X | Z | F | T | V | W | W |
| F | T | Y | X | Z | | P | T | U | X | Z | P | T | V | X | W | |
| P | L | L | L | L | L | P | U | U | X | L | P | T | V | V | V | |

Pentomino 4X5X3 Solution 2110

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | W | N | N | F | F | W | Y | N | N | N |
| W | Z | V | V | W | X | F | F | P | Y | Y | Y | Y | P |
| W | Z | Z | Z | V | X | X | X | P | L | L | L | L | P |
| U | U | T | T | Z | U | X | T | T | U | U | T | L | P |

Pentomino 4X5X3 Solution 2310

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V | W | W | P | U | V | Y | X | P | U | V | V | V | P | U |
| W | W | X | T | U | Z | Y | X | P | F | Z | Y | X | P | U |
| W | T | T | T | F | Z | Y | X | L | F | L | L | L | L | F |
| Z | N | N | T | F | Z | Y | N | N | N | I | I | I | I | I |

Pentomino 4X5X3 Solution 2510

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | P | P | Y | Z | X | P | P | N | Z | I | I | I | I | I |
| X | T | W | Y | V | X | L | W | N | Z | X | L | L | L | L |
| U | T | Y | Y | V | X | T | W | N | Z | U | T | W | N | Z |
| U | T | F | Y | V | U | F | F | F | V | U | F | W | N | V |

Pentomino 4X5X3 Solution 2710

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U | P | F | V | T | | U | P | T | T | T | | U | N | N | N | T |
| U | P | F | V | W | X | P | F | Z | Z | | U | P | F | N | N | |
| X | V | V | V | W | X | L | F | Z | W | | X | L | L | L | L | |
| I | I | I | I | I | X | Y | Z | Z | W | | Y | Y | Y | Y | W | |

Pentomino 4X5X3 Solution 2810

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U | V | F | N | Z | U | F | F | L | Z | U | P | F | F | W |
| U | V | T | N | N | X | P | T | L | Z | U | P | T | W | W |
| X | V | V | V | N | X | P | T | L | Z | X | P | W | W | Z |
| Y | Y | Y | Y | N | X | Y | T | L | L | I | I | I | I | I |

Pentomino 4X5X3 Solution 3010

| I | I | I | I | I | I | Y | X | P | P | P | U | U | P | P | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Y | X | F | Z | V | V | Y | X | F | Z | N | U | X | W | W | N |
| L | L | L | L | L | V | Y | X | F | Z | N | U | U | F | W | W |
| L | T | V | V | V | V | Y | T | F | Z | N | T | T | T | Z | W |

Pentomino 4X5X3 Solution 3210

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | Y | N | N | F | P | L | L | N | N | N |
| V | V | V | F | T | Y | Y | X | F | P | L | Z | Z | F |
| V | U | T | T | T | Y | X | X | X | P | L | U | Z | F |
| V | U | W | W | T | Y | U | X | W | W | L | U | Z | W |

Pentomino 4X5X3 Solution 3410

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | I | I | I | J | W | P | P | P | Y | W | P | P | N | L |
| W | V | X | F | Y | W | X | X | X | Y | Z | Z | X | N | L |
| W | V | F | F | F | U | U | U | N | Y | U | Z | U | N | L |
| T | V | V | V | F | T | T | T | N | Y | T | Z | Z | L | L |

Pentomino 4X5X3 Solution 3610

| | | | | | | | | | | | | | | |
|---|---|----------|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| T | T | T | P | P | I | I | I | I | I | F | F | Z | Z | W |
| U | T | Y | P | P | Y | Y | Y | Y | W | U | F | F | Z | W |
| U | T | X | P | W | U | X | X | X | W | U | F | X | Z | W |
| V | V | V | N | N | V | N | N | N | L | V | L | L | L | L |

Pentomino 4X5X3 Solution 2910

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Y | Y | Y | Y | U | L | X | Y | F | U | V | V | V | W | U |
| T | X | Z | Z | U | L | X | F | F | F | V | X | W | W | U |
| T | T | T | Z | P | L | X | F | P | P | V | W | P | P | P |
| T | N | N | Z | Z | L | L | N | N | N | I | I | I | I | I |

Pentomino 4X5X3 Solution 3110

| W | N | Z | U | Y | W | W | Z | Z | Z | L | W | W | U | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | N | T | U | Y | P | P | P | U | Y | L | P | P | U | V |
| N | X | T | F | Y | X | X | X | F | F | L | X | F | F | V |
| N | T | T | T | Y | I | I | I | I | I | L | L | V | V | V |

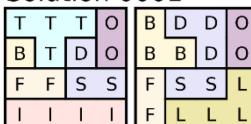
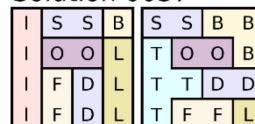
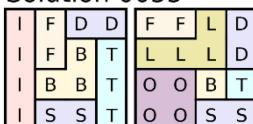
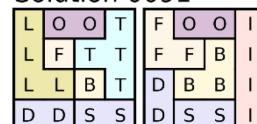
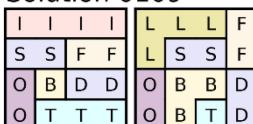
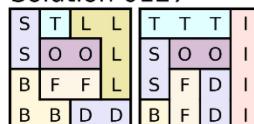
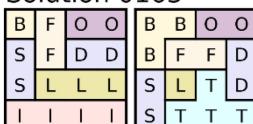
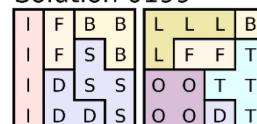
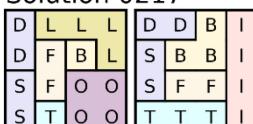
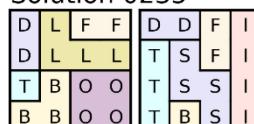
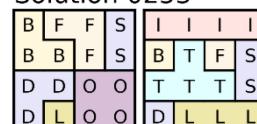
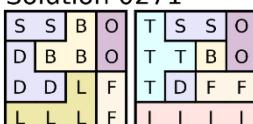
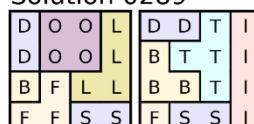
Pentomino 4X5X3 Solution 3310

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U | T | W | W | N | U | W | W | F | P | U | W | Z | Z | P |
| U | T | V | F | N | X | T | Y | F | P | U | T | Z | F | P |
| X | T | V | N | N | X | Y | Y | Y | | X | Z | Z | F | P |
| V | V | V | N | L | X | L | L | L | | I | I | I | I | I |

Pentomino 4X5X3 Solution 3510

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V | V | V | F | U | V | F | F | F | U | V | W | F | L | L |
| T | T | T | X | U | N | N | X | X | X | Z | W | W | X | L |
| Z | T | P | P | U | Z | N | N | N | U | Z | Y | W | W | L |
| Z | T | P | P | P | I | I | I | I | I | Y | Y | Y | Y | L |

End of Solution

Tetracube 3D 4X4X2 Edition**Solutions**Tetracube 4X4X2
Solution 0001Tetracube 4X4X2
Solution 0019Tetracube 4X4X2
Solution 0037Tetracube 4X4X2
Solution 0055Tetracube 4X4X2
Solution 0073Tetracube 4X4X2
Solution 0091Tetracube 4X4X2
Solution 0109Tetracube 4X4X2
Solution 0127Tetracube 4X4X2
Solution 0145Tetracube 4X4X2
Solution 0163Tetracube 4X4X2
Solution 0181Tetracube 4X4X2
Solution 0199Tetracube 4X4X2
Solution 0217Tetracube 4X4X2
Solution 0235Tetracube 4X4X2
Solution 0253Tetracube 4X4X2
Solution 0271Tetracube 4X4X2
Solution 0289Tetracube 4X4X2
Solution 0307