

# 100 Rubik's Cube Sudoku Puzzles

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*Sudoku for cubers*

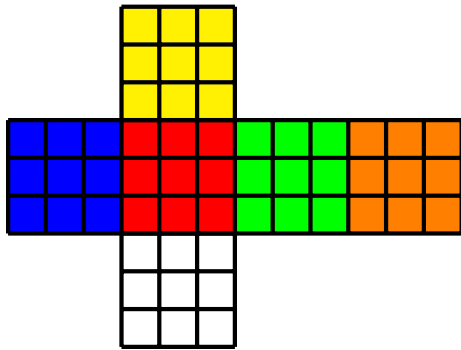
Made by **Zixing Wang**

# Preface

## Rules

Cube Sudoku is to fill colors in a  $3 \times 3 \times 3$  Rubik's cube with the Western color scheme. Once the puzzle is solved, this means that the state is solvable by legal moves (that is, without taking the cube apart again).

## Western color scheme



## Solutions

Each problem has only one solution. Solution can be accessed after each problem. You can apply the scramble in the solution to your Rubik's cube with yellow on the top and red on the front.

## Acknowledgement

Thanks to Xi'an Jiao Tong University Rubik's Cube Club, for providing the idea of "Cube Sudoku".

## Github link

<https://github.com/nbwzx/CubeSudoku>

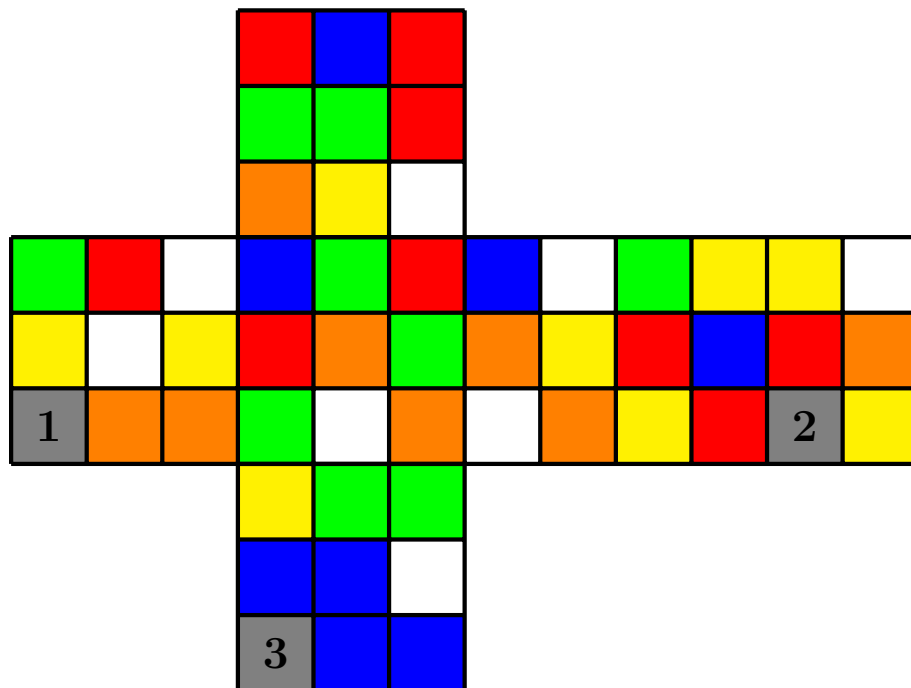
## Contributors

Zixing Wang

## License

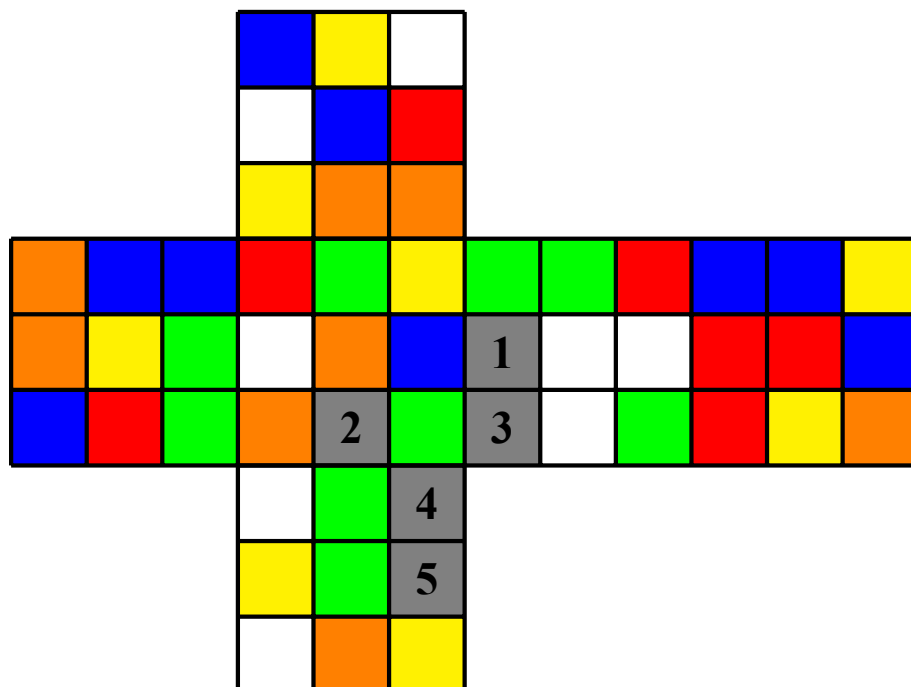
MIT License

**No. 1      Difficulty: ★**



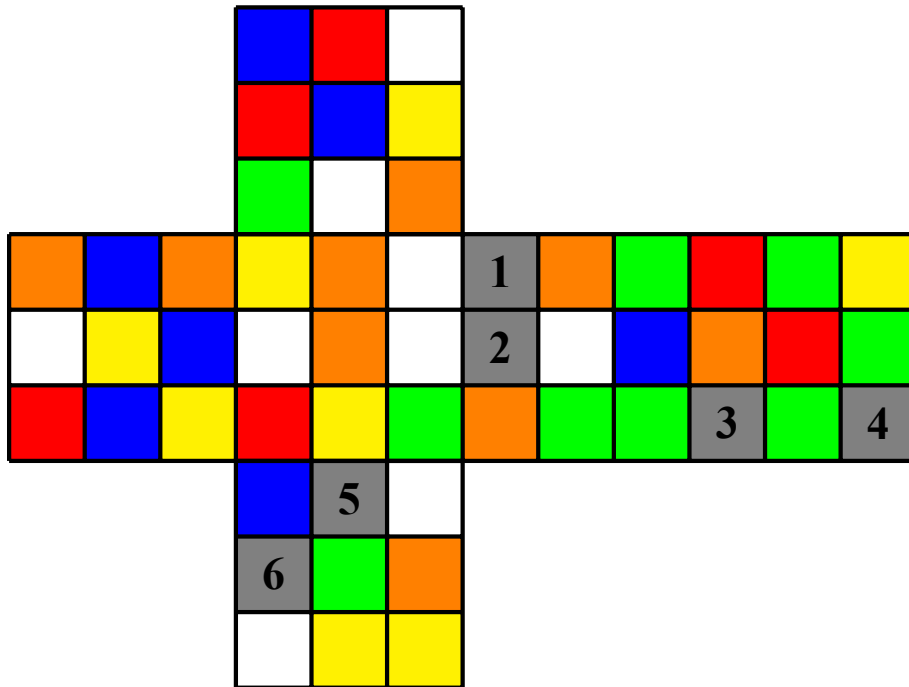
**Solution 1: F R L U' L U D' U R' D2 L F2 U B' U D' U F' D2 R' Fw' Uw2**

**No. 2      Difficulty: ★**



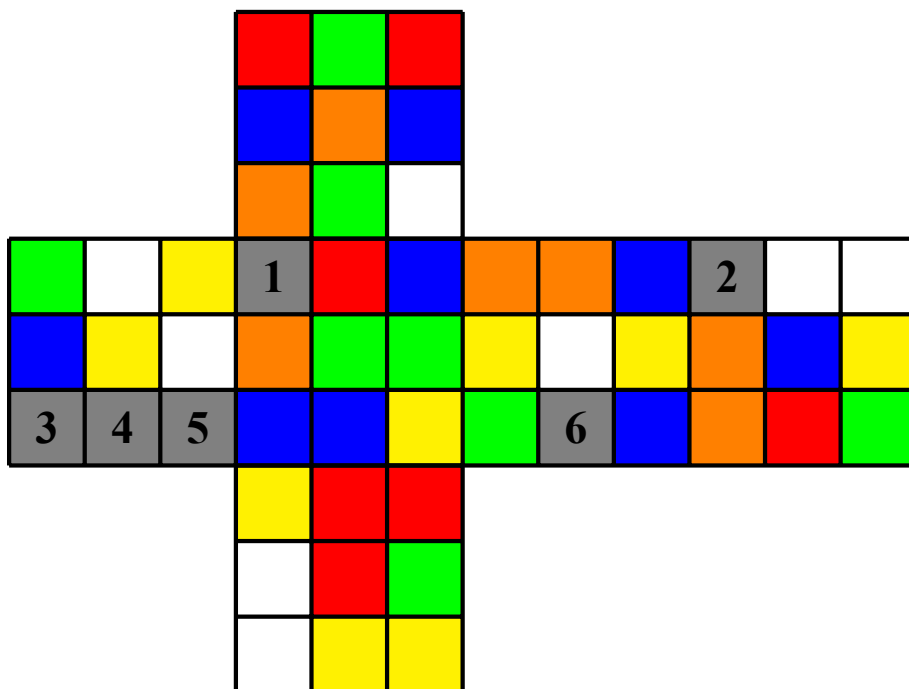
**Solution 2: D2 B2 D2 R' L2 U D' B' L B L2 F2 D' F' U2 L2 F' U' D L' Fw Uw2**

**No. 3      Difficulty: ★**



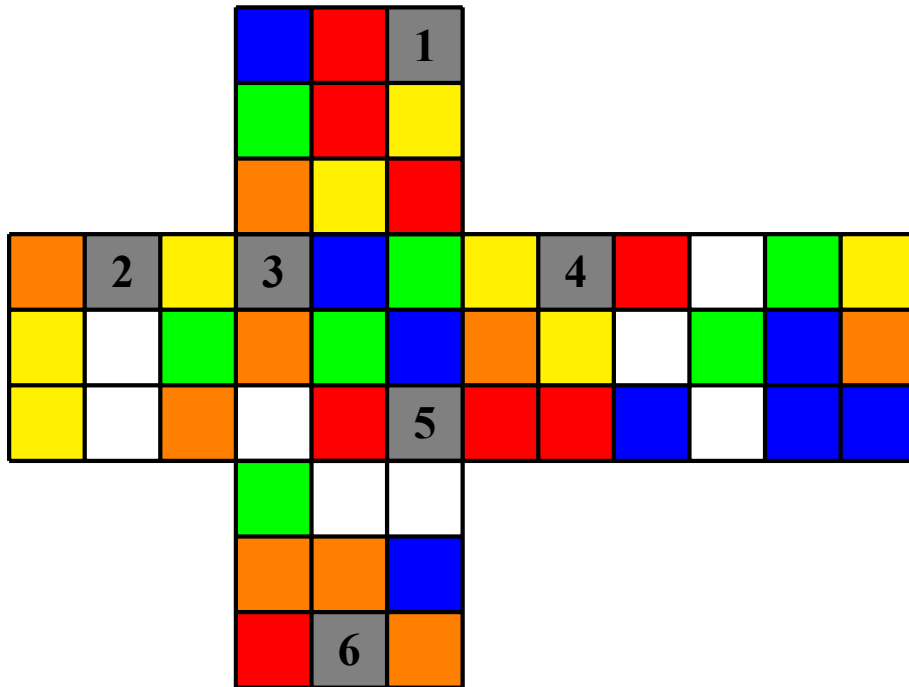
**Solution 3: U' D' B R F' L B F' U' B2 L' U L' D L2 U' B F' D2 U Fw Uw2**

**No. 4      Difficulty: ★**



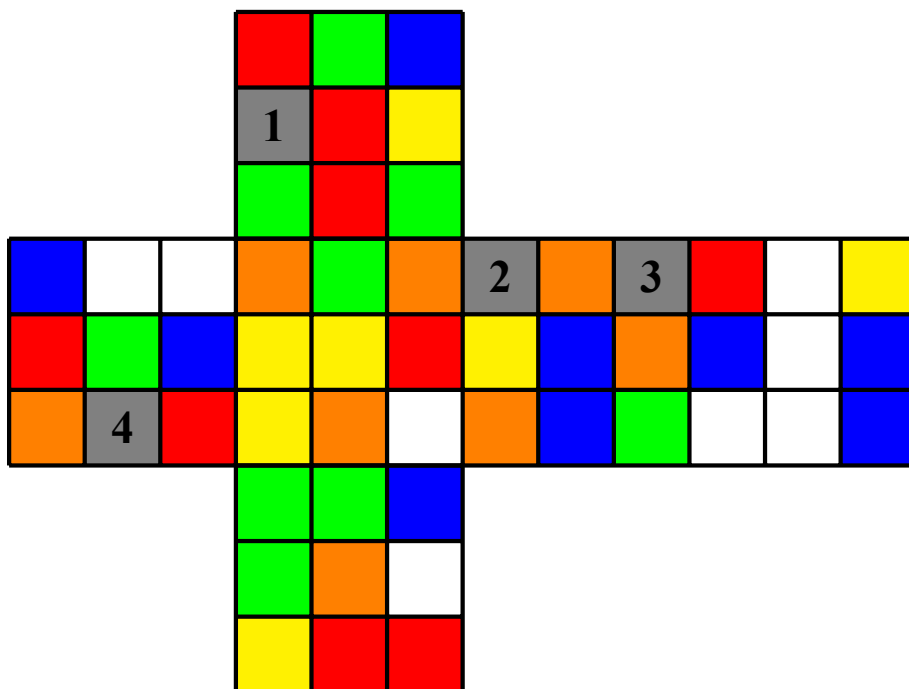
**Solution 4: B' D2 U' F' B2 R' B' U F' B' U2 D' L' B2 U2 F' D' L' B2 D' Rw' Uw**

**No. 5      Difficulty: ★**



**Solution 5: B' F2 R' U D2 B R B' R2 D R U R' U R2 D2 R2 L B L2 Rw Uw**

**No. 6      Difficulty: ★**



**Solution 6: B R2 F' B R2 L2 F2 L' U L2 U' F2 D' U2 R2 L F' U2 D' F Rw Uw2**

A 15x15 grid with a cross shape of colored squares. The grid is composed of 225 cells. The central 5x5 area is a cross shape, with the following colors in each row (from top to bottom):

- Row 1: Yellow, Red, White
- Row 2: Red, Green, Green
- Row 3: Green, Green, Red
- Row 4: Yellow, Orange, White
- Row 5: Orange, White, White

The horizontal bar of the cross has the following colors in each column (from left to right):

- Column 1: Green, Blue, Orange
- Column 2: Yellow, Orange, White
- Column 3: White, White, Yellow
- Column 4: Red, Red, Orange
- Column 5: Orange, Blue, Blue
- Column 6: White, Yellow, Yellow
- Column 7: Yellow, Yellow, Gray (1)
- Column 8: Gray (2), Gray (3), Gray (4)
- Column 9: Green, Blue, Orange
- Column 10: White, Red, Blue
- Column 11: Red, Orange, Blue

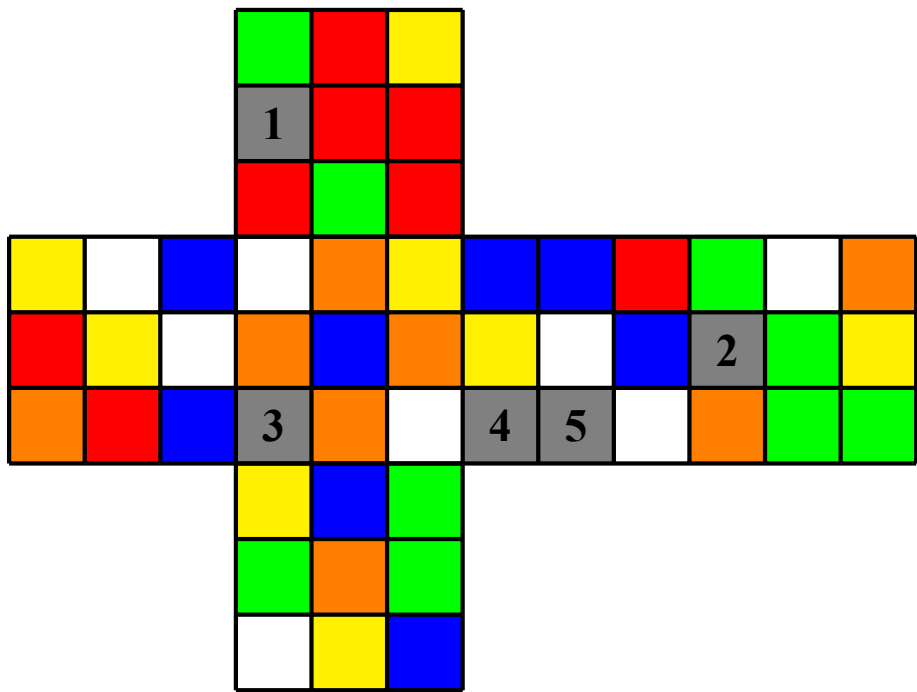
The vertical bar of the cross has the following colors in each row (from top to bottom):

- Row 1: Yellow, Red, White
- Row 2: Red, Green, Green
- Row 3: Green, Green, Red
- Row 4: Yellow, Orange, White
- Row 5: Orange, White, White
- Row 6: White, Yellow, Yellow
- Row 7: Yellow, Yellow, Gray (1)
- Row 8: Gray (2), Gray (3), Gray (4)
- Row 9: Green, Blue, Orange
- Row 10: White, Red, Blue
- Row 11: Red, Orange, Blue

The numbered gray squares are located at the following coordinates (row, column):

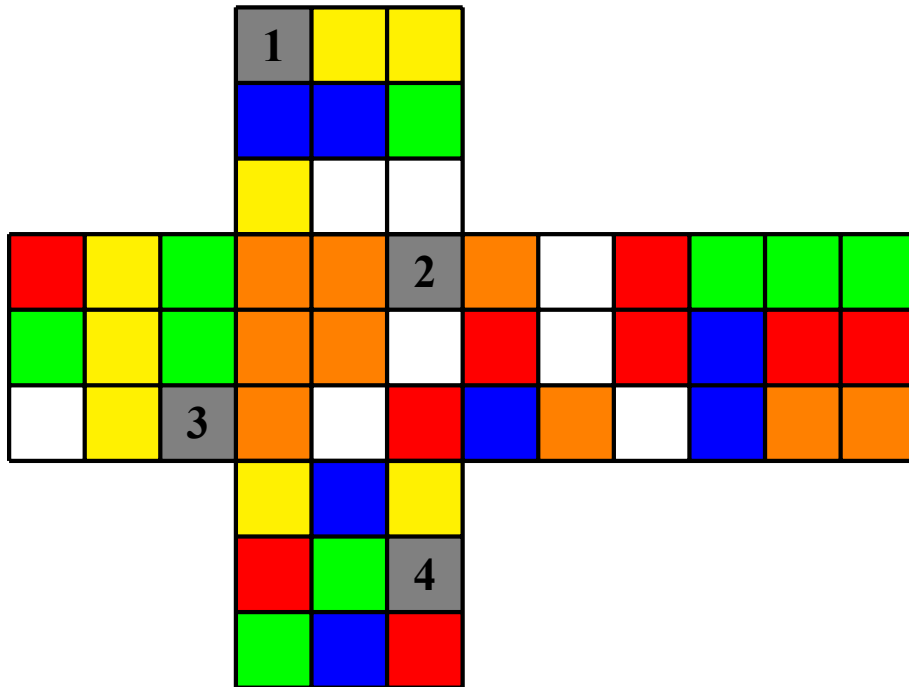
- 1: (7, 7)
- 2: (8, 8)
- 3: (7, 8)
- 4: (10, 7)
- 5: (10, 8)

**No. 8      Difficulty: ★**



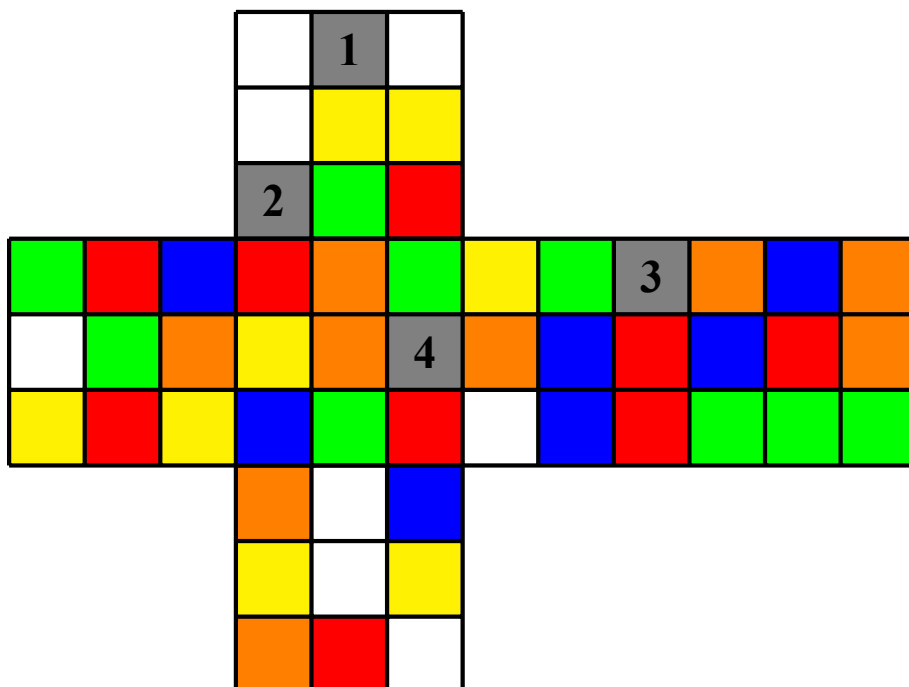
5

**No. 9      Difficulty: ★**



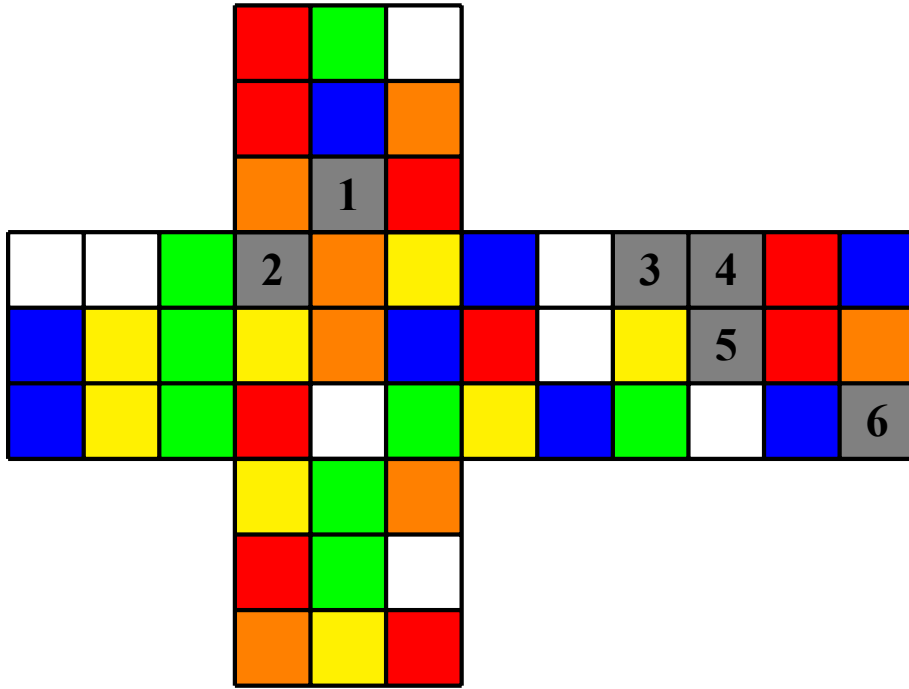
**Solution 9: U' L2 U B U2 F2 D' U2 R2 L U' B' L' B' D2 R D R F B Fw Uw2**

**No. 10      Difficulty: ★**



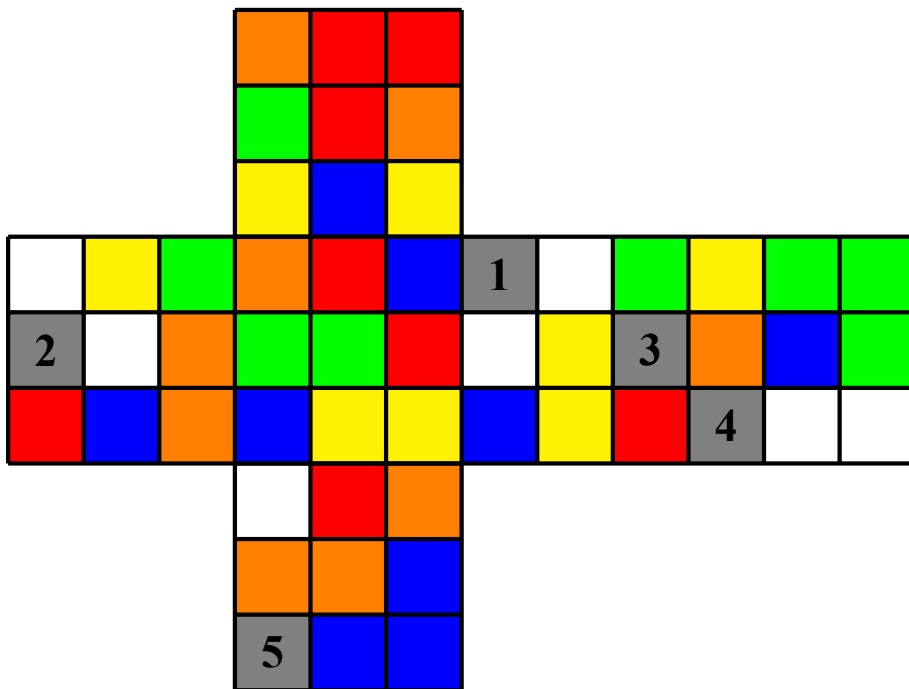
**Solution 10: U2 R2 F2 R2 B2 F2 L D2 L' F B' L F2 D R U' F L U' R Uw2**

**No. 11      Difficulty: ★**



**Solution 11: D2 R B2 L2 B' L R' D L2 U R D' L D U2 B L R' B D2 Fw Uw2**

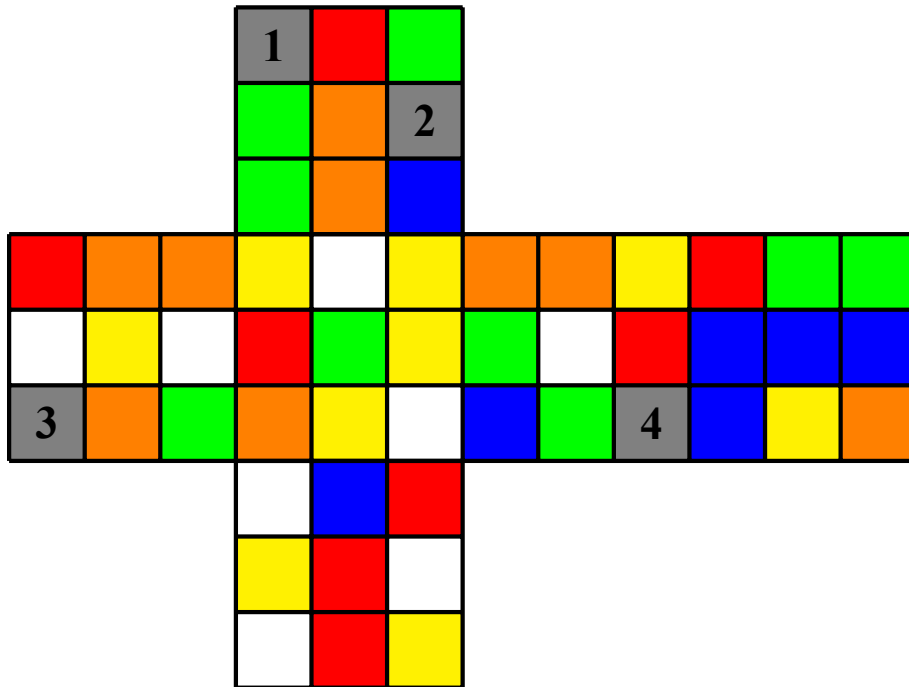
**No. 12**      **Difficulty: ★**



**Solution 12:** L D' U' B' L2 B' R2 L' F2 L U2 F2 D U L2 F2 R' U' F2 U' Rw Uw

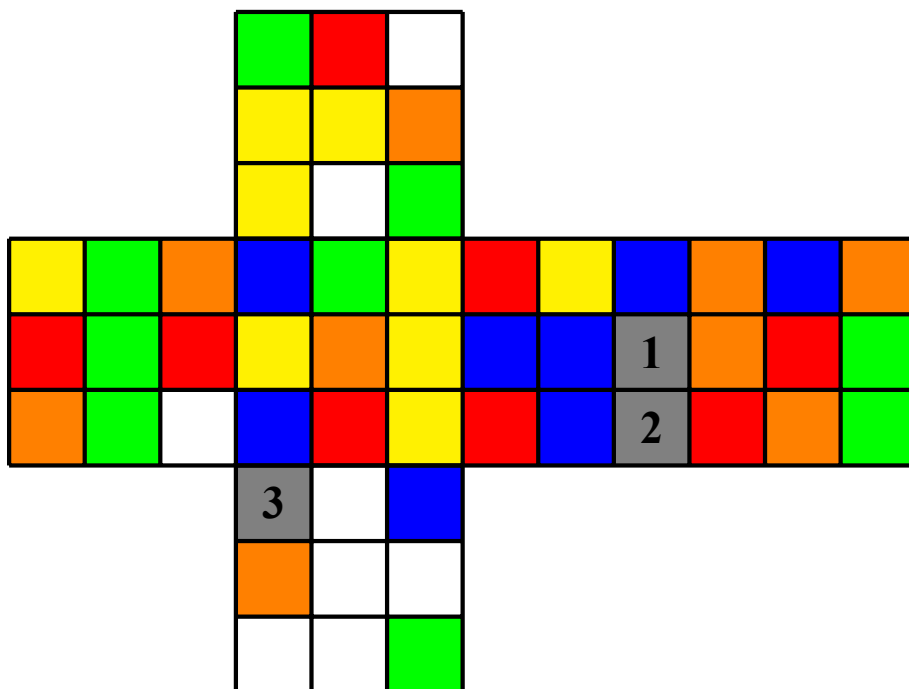


**No. 13      Difficulty: ★**



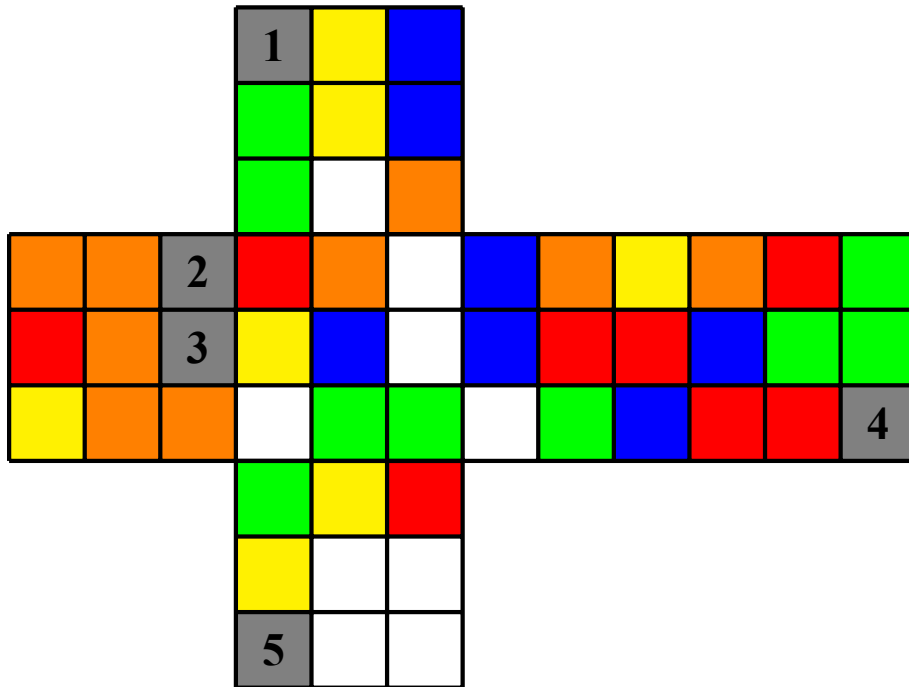
**Solution 13: F2 R' L U2 B' L' B2 R2 B U2 L2 U2 D2 B2 R F2 D2 U' L2 D Rw' Uw**

**No. 14      Difficulty: ★**



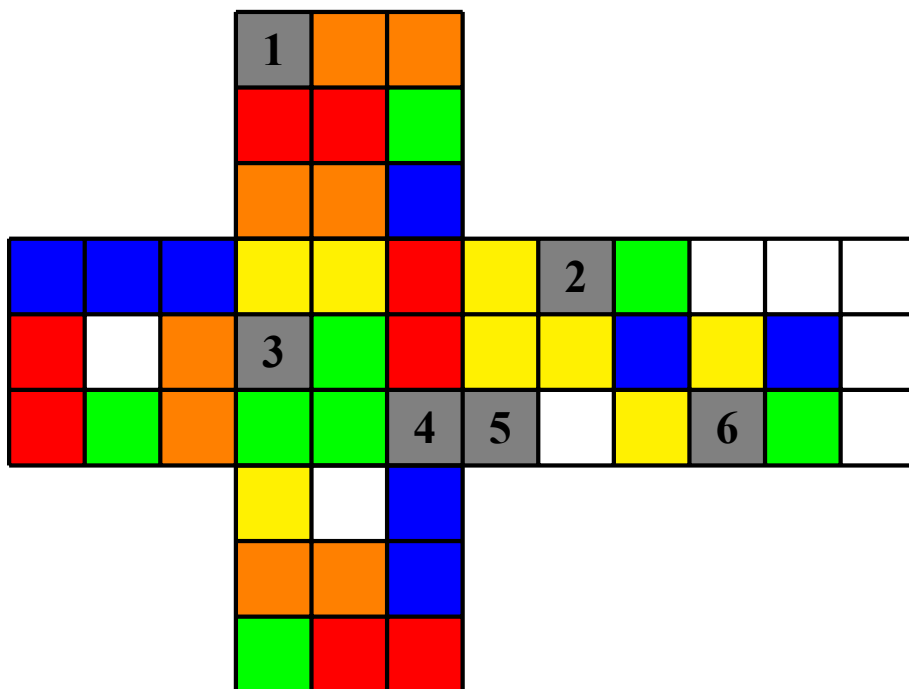
**Solution 14: F2 L2 D2 F2 L B' R D2 U R B' R U L2 B2 L' F L F' R Uw2**

**No. 15      Difficulty: ★**



**Solution 15: B F L2 F' L2 F U2 F B' D F2 B' U2 B L2 D' B' D R2 D' Uw'**

**No. 16      Difficulty: ★**



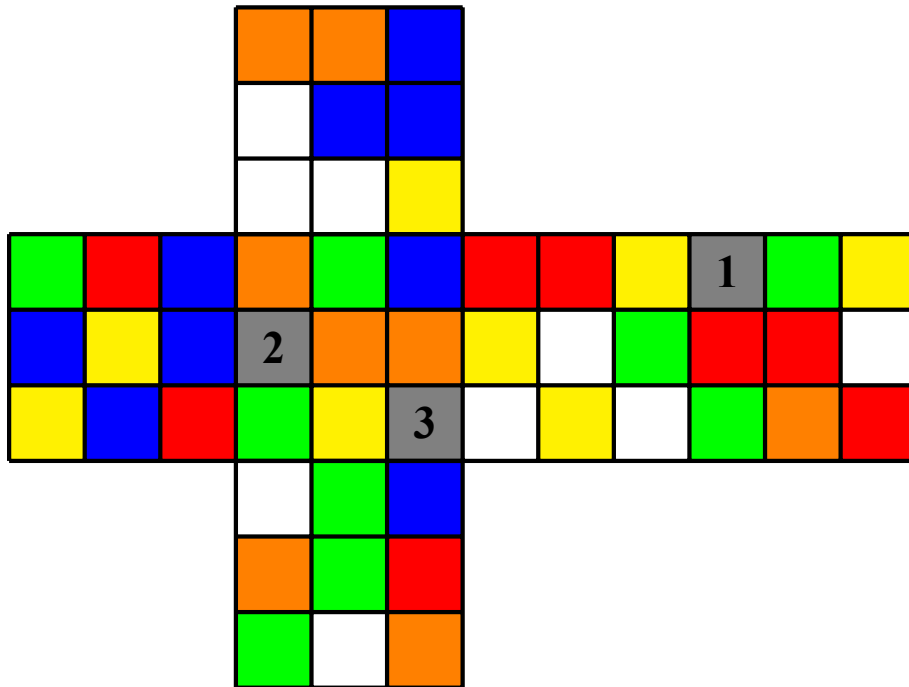
**Solution 16: B' R' B' R' U F2 B R2 L' U D' U B2 F R2 U' B R D2 L' Rw Uw**

The grid is 10 columns wide and 10 rows high. A cross shape is formed by the 4th, 5th, and 6th columns and the 4th, 5th, and 6th rows. The squares are colored as follows:

- Row 1: (4,1) Green, (5,1) Yellow, (6,1) Yellow
- Row 2: (4,2) White, (5,2) Blue, (6,2) Blue
- Row 3: (4,3) Blue, (5,3) Orange, (6,3) White
- Row 4: (1,4) White, (2,4) Green, (3,4) Red, (4,4) Yellow, (5,4) Blue, (6,4) Orange, (7,4) Gray (1), (8,4) Red, (9,4) Red, (10,4) Green, (11,4) Blue, (12,4) Red
- Row 5: (1,5) White, (2,5) Yellow, (3,5) Gray (2), (4,5) Orange, (5,5) Orange, (6,5) Yellow, (7,5) Green, (8,5) White, (9,5) Orange, (10,5) Yellow, (11,5) Red, (12,5) Orange
- Row 6: (1,6) Orange, (2,6) Red, (3,6) White, (4,6) Orange, (5,6) Gray (3), (6,6) Blue, (7,6) Red, (8,6) Red, (9,6) Orange, (10,6) Yellow, (11,6) Green, (12,6) Yellow
- Row 7: (4,7) Gray (4), (5,7) White, (6,7) White
- Row 8: (4,8) Yellow, (5,8) Green, (6,8) White
- Row 9: (4,9) Gray (5), (5,9) Gray (6), (6,9) Blue

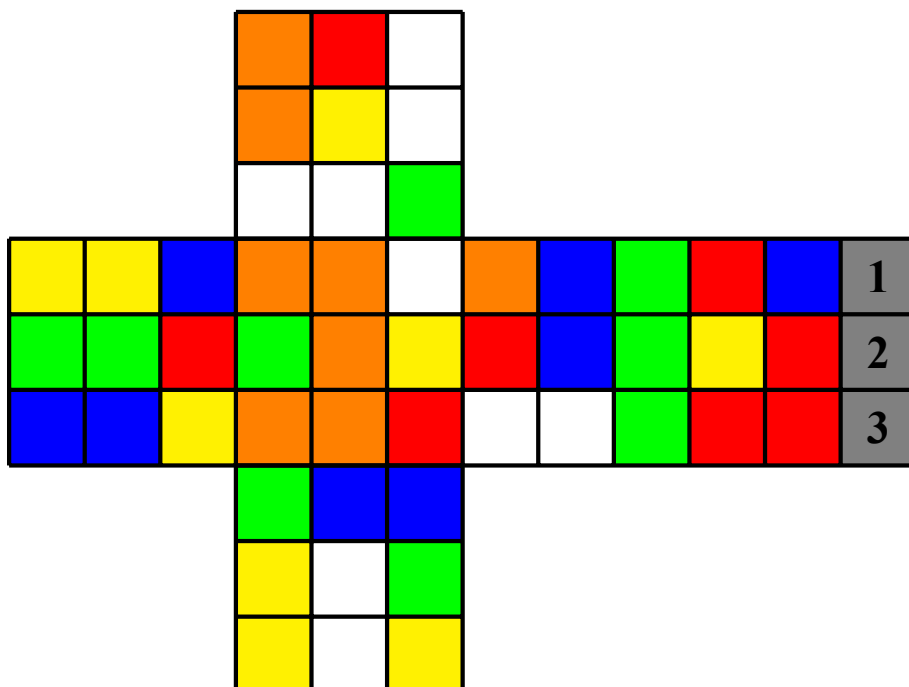
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**No. 19      Difficulty: ★**



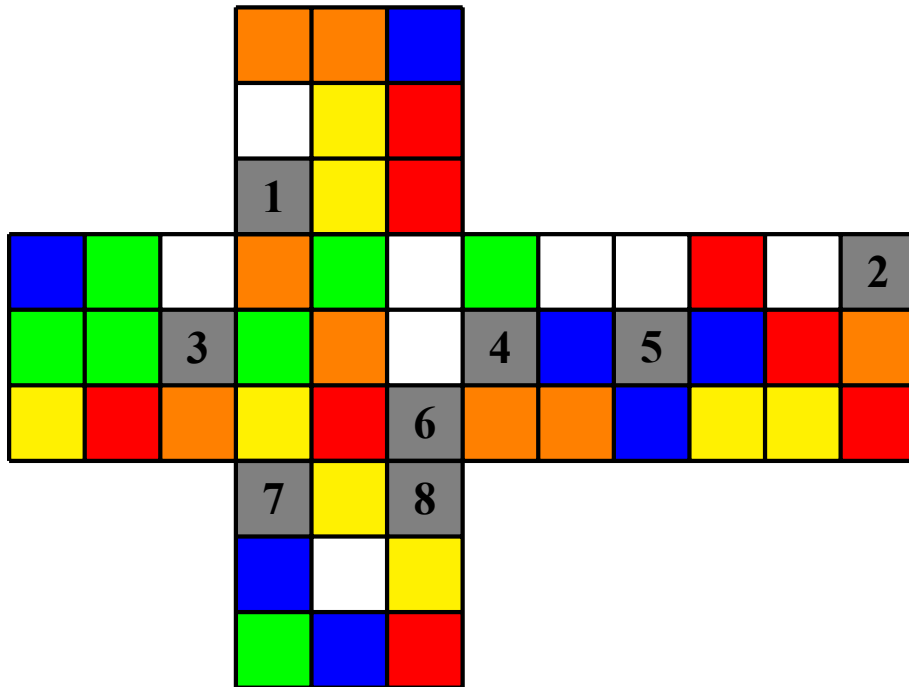
**Solution 19: L' U2 L D' B' D' L R2 D2 U' B' U F' R' U D2 R2 U2 B L2 Fw Uw2**

**No. 20      Difficulty: ★**



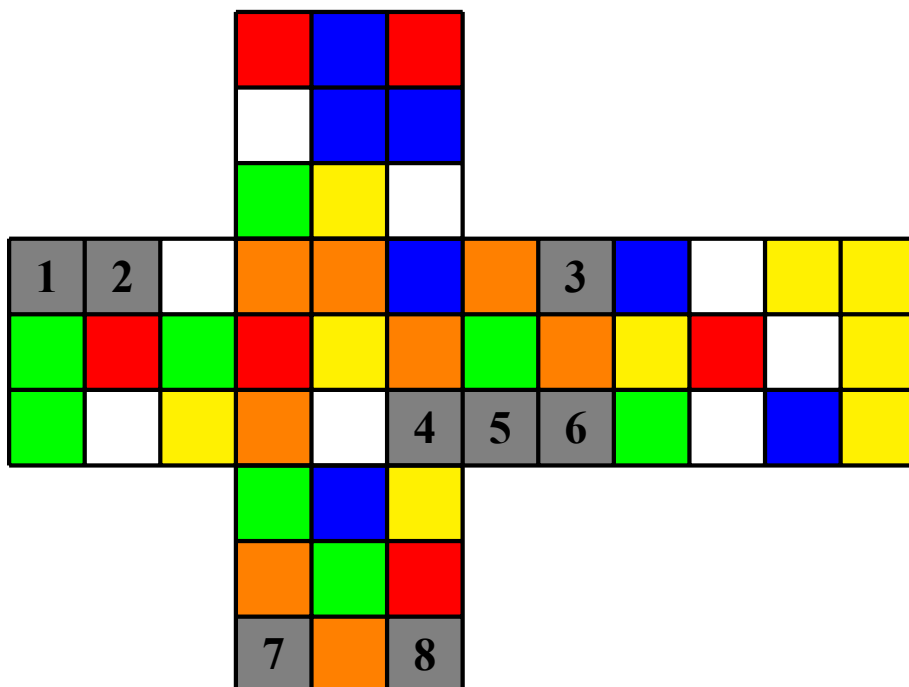
**Solution 20: U2 R2 L2 B L' D' L U2 L2 U L U B' L2 F R F' B2 L2 D' Uw2**

**No. 21      Difficulty: ★★**



**Solution 21: B2 F' U L R' B2 L2 B' U' F2 L' U' B' U R2 F' U2 R' F' D' Uw2**

**No. 22      Difficulty: ★★**

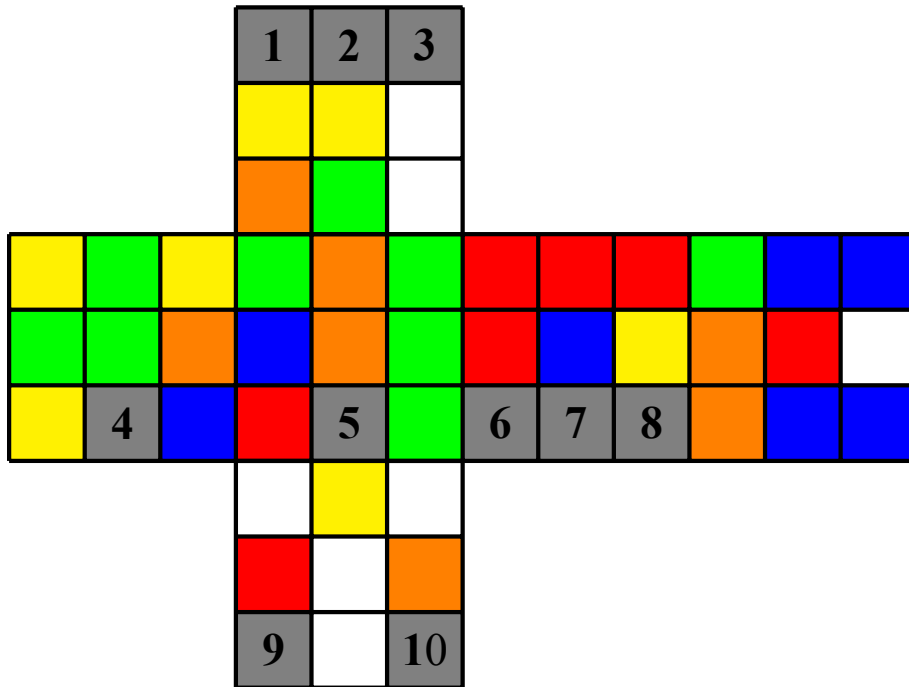


**Solution 22: L2 B R' F' U2 B2 F' U D' U' F2 R L' D2 L2 U D' F U' R2 Fw Uw**

1	2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9	1
3	4	5	6	7	8	9	1	2
4	5	6	7	8	9	1	2	3
5	6	7	8	9	1	2	3	4
6	7	8	9	1	2	3	4	5
7	8	9	1	2	3	4	5	6
8	9	1	2	3	4	5	6	7
9	1	2	3	4	5	6	7	8

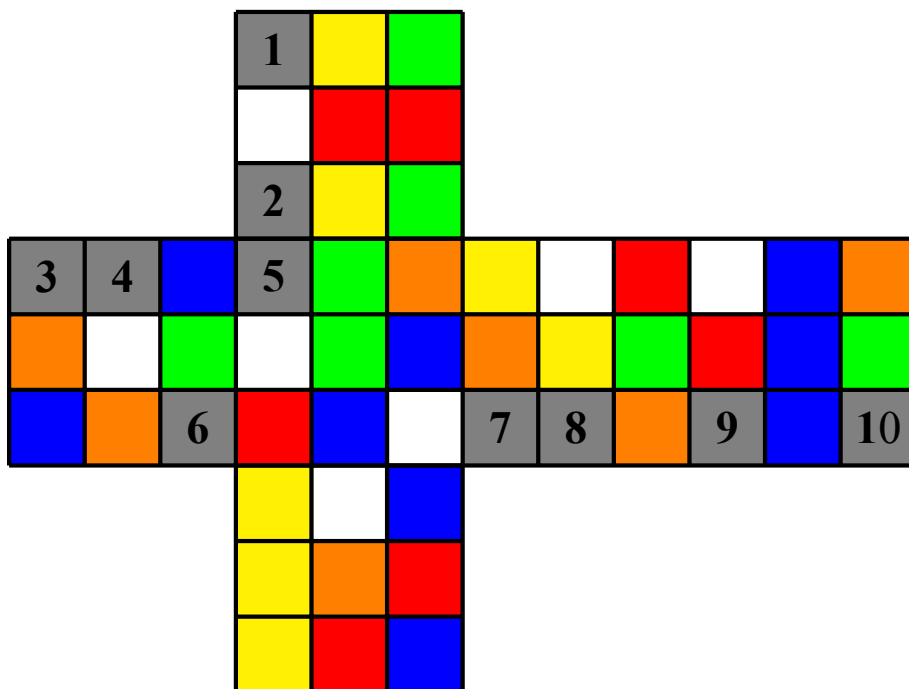
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**No. 25      Difficulty: ★★**



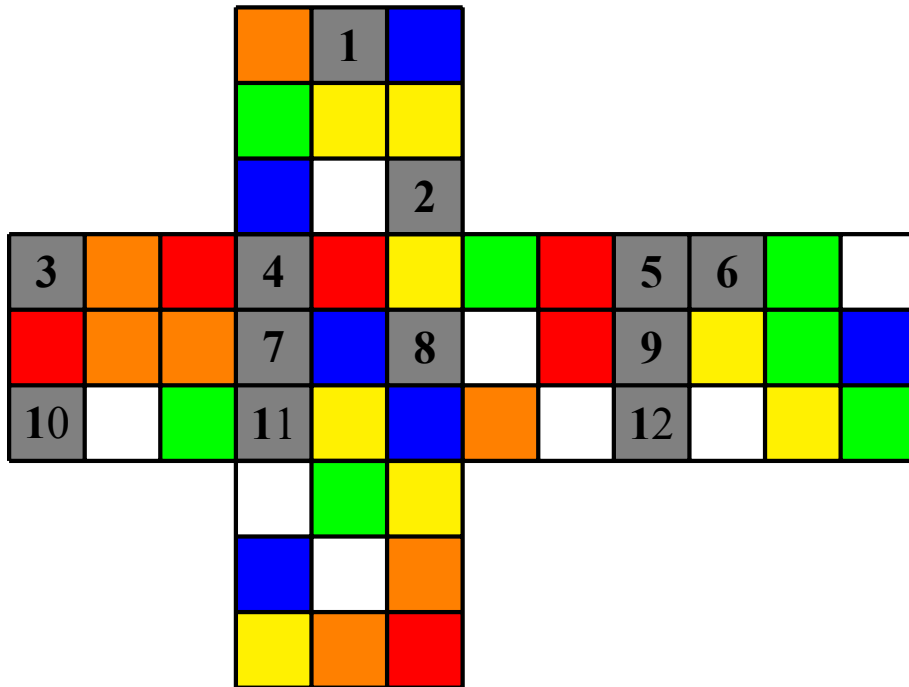
**Solution 25: B' R2 B2 D2 U' B' U' B L' R2 F2 D2 R2 D2 U F2 D' R2 U2 R Uw2**

**No. 26      Difficulty: ★★**



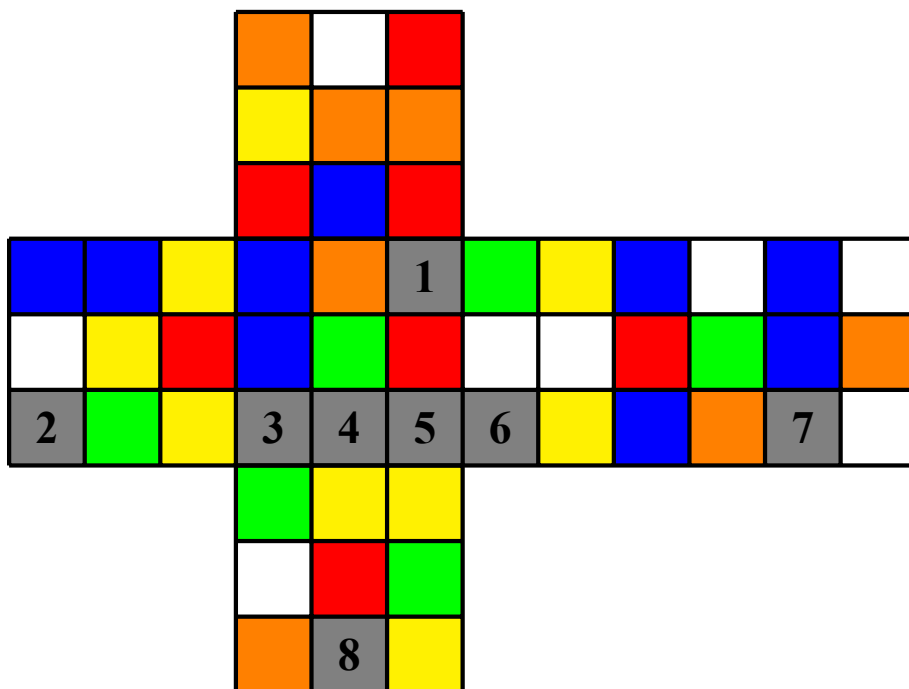
**Solution 26: B R' F R2 F' B R' B2 L2 U' D2 L U2 L2 R D2 U' F2 L' B Rw Uw**

**No. 27      Difficulty: ★★**



**Solution 27: U D L' F' R' F2 R2 L B L D2 U' L' R' U' B D2 L2 R' B' Uw'**

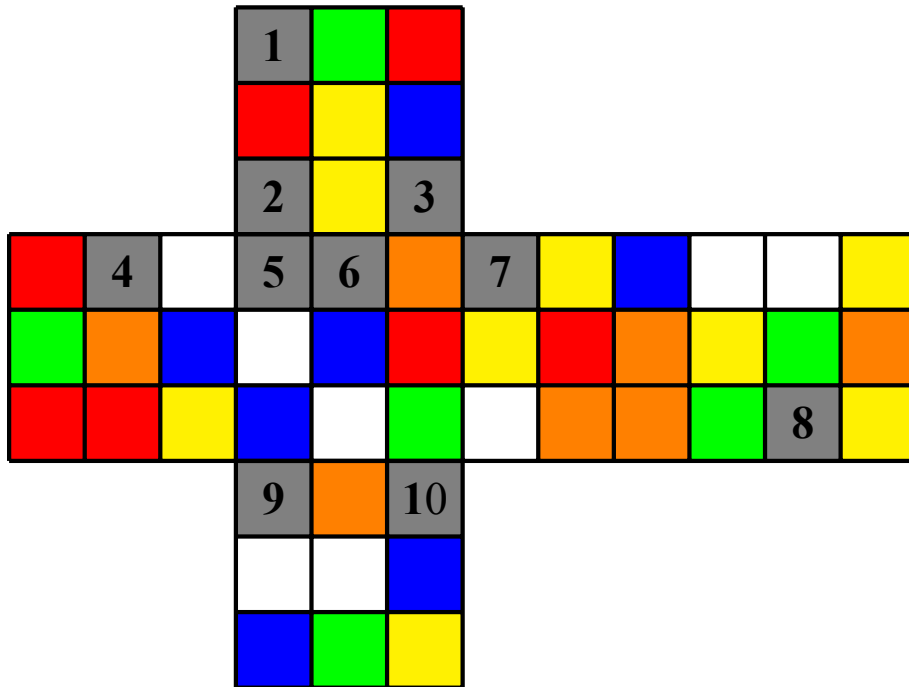
**No. 28      Difficulty: ★★**



**Solution 28: U2 R' F2 L' U2 R D U L' F2 U' L2 U2 B F U F B' D U' Rw' Uw**

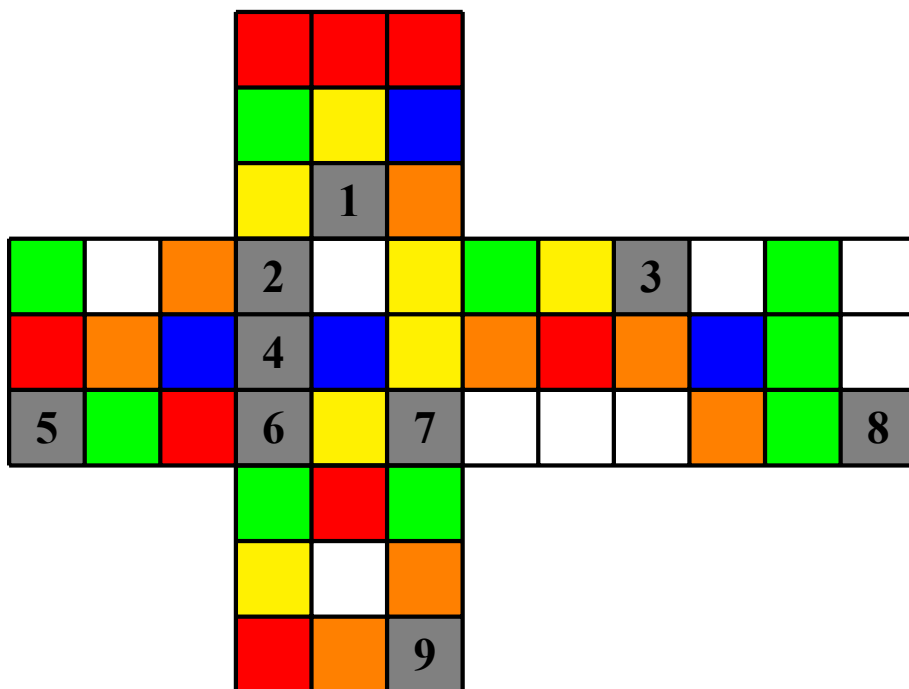


**No. 29**      **Difficulty: ★★**



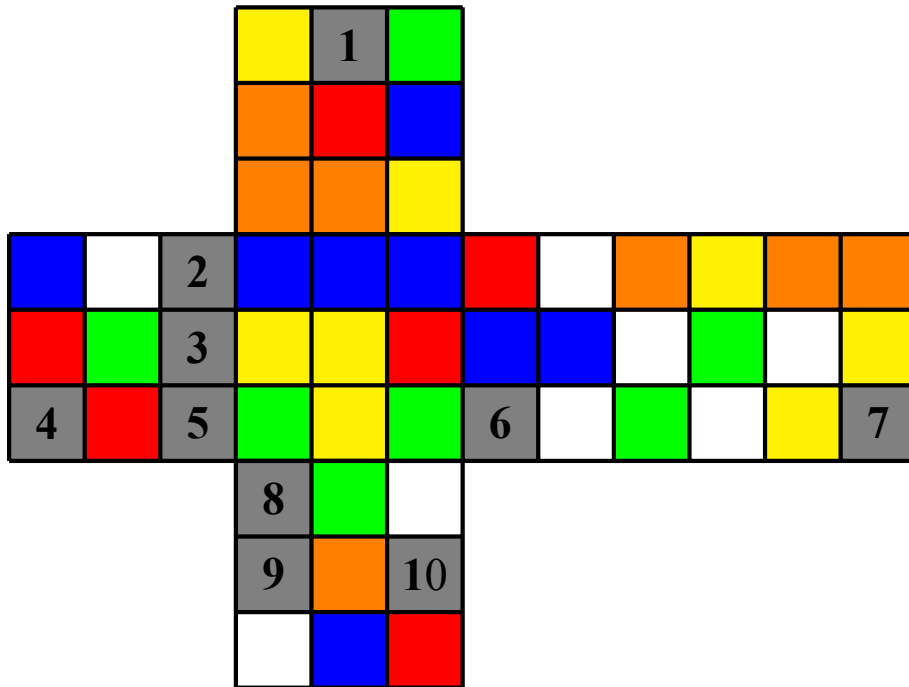
**Solution 29: R L2 U D B' D F' D R2 L D' R U2 L' F R2 U2 R' U' F2 Uw'**

**No. 30**      **Difficulty: ★★**



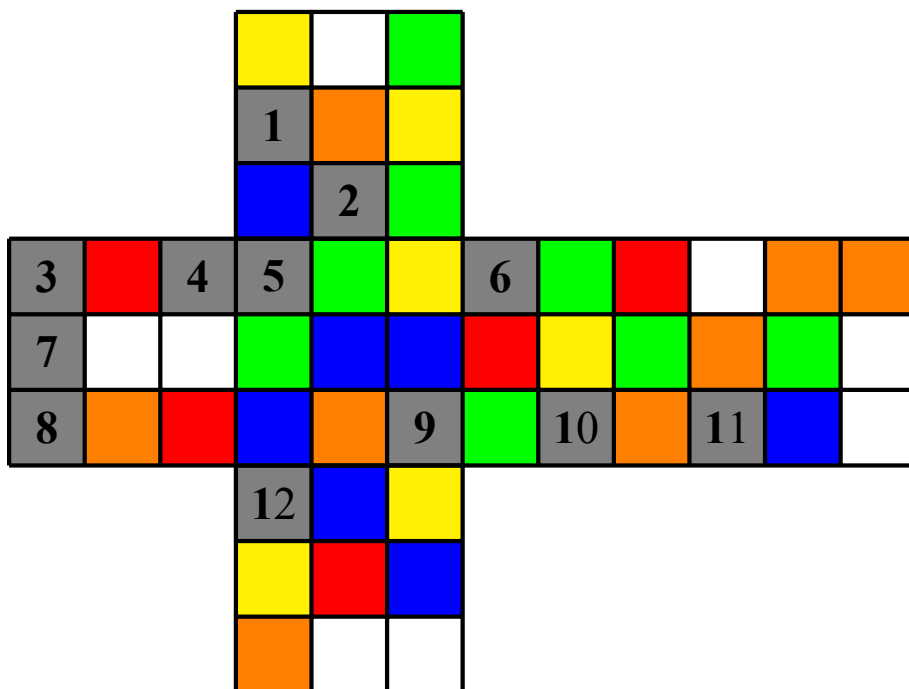
**Solution 30: R2 D2 B D' B' F' D B2 D' B' U2 B' D' R B L F D U2 R Uw'**

**No. 31      Difficulty: ★★**



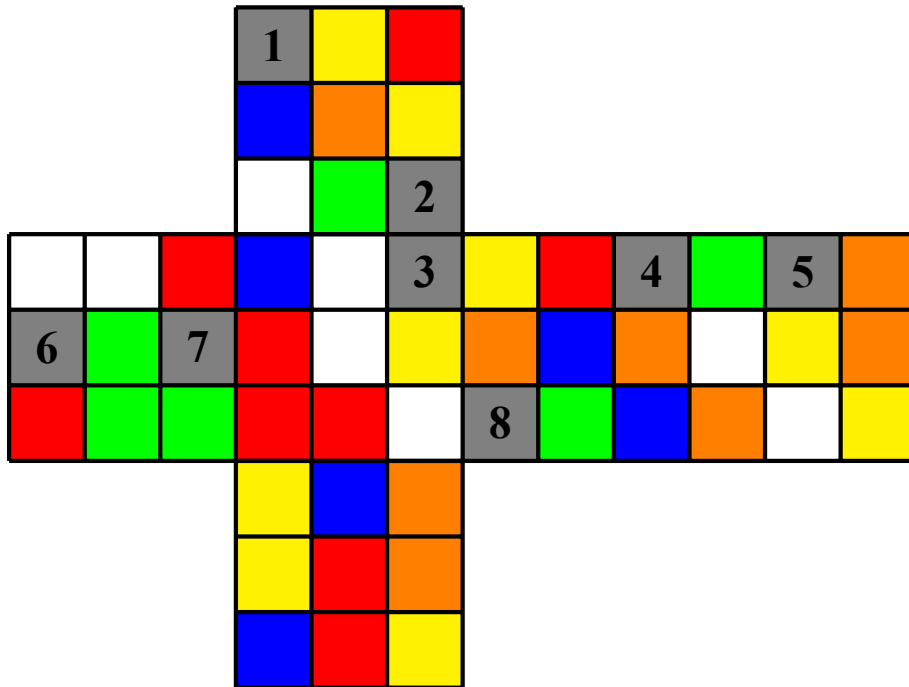
**Solution 31: F' B2 L F2 D F B' D R' F U' R' U F' R2 F2 R L2 D U' Rw Uw2**

**No. 32      Difficulty: ★★**



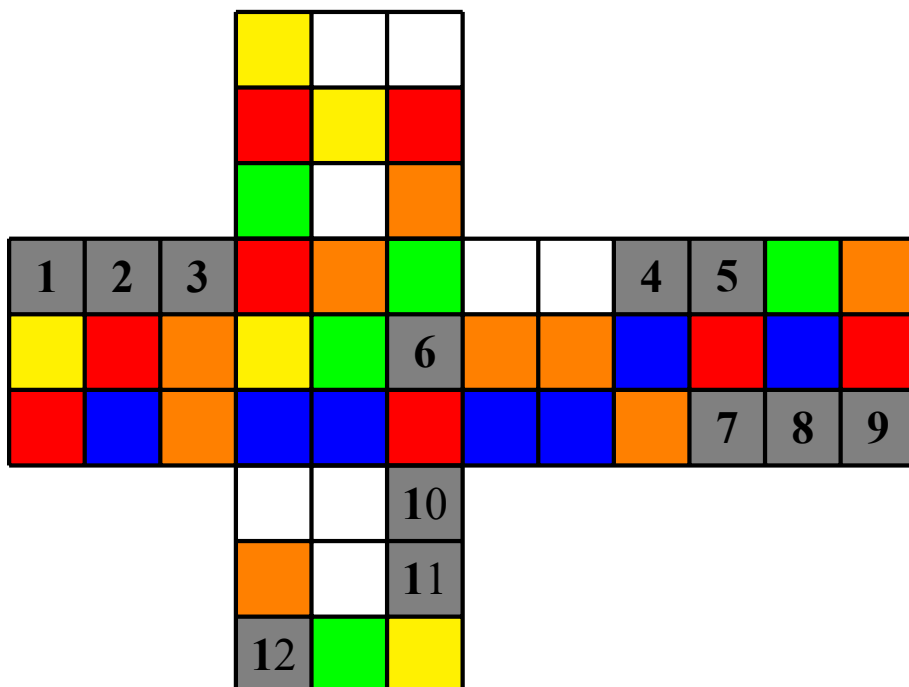
**Solution 32: R2 F2 R2 U' L D' F' B' U2 F2 U' L' F R' F' B' U L2 B U2 Rw' Uw'**

**No. 33      Difficulty: ★★**



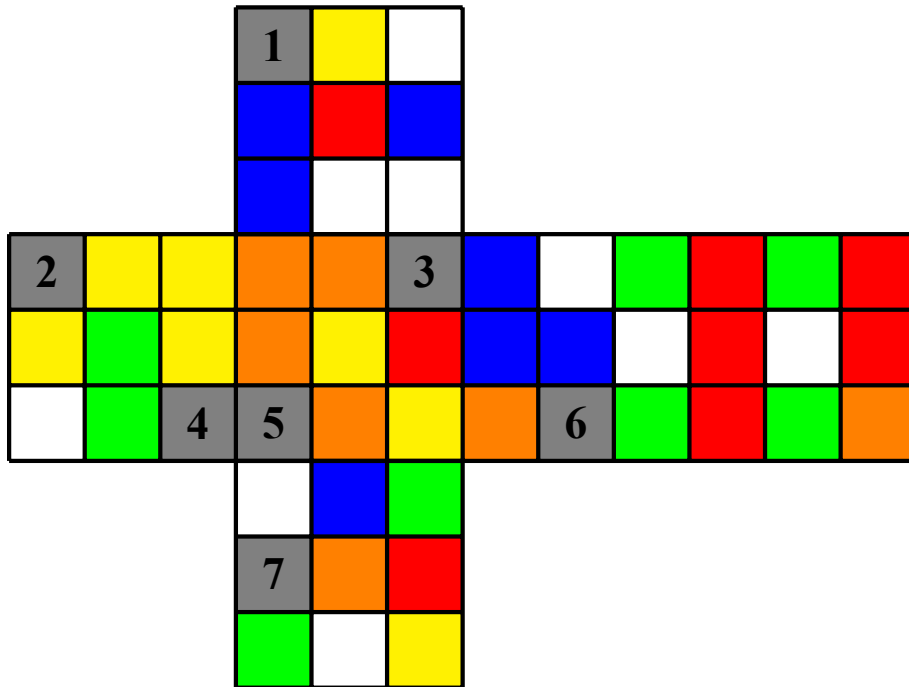
**Solution 33: F' L D' B2 F R D L2 B' F2 D' L2 F2 B2 R2 F2 U F' L F Rw' Uw2**

**No. 34      Difficulty: ★★**



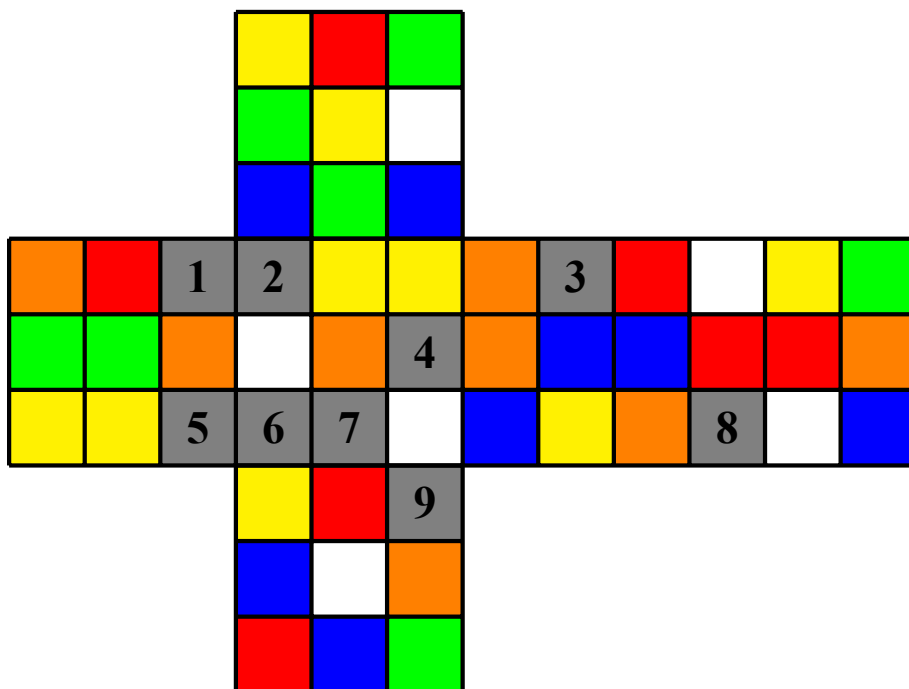
**Solution 34: F2 R L' B2 U' R D F D F' L' R2 D2 F2 B2 U' L2 R' F2 B' Uw**

**No. 35      Difficulty: ★★**



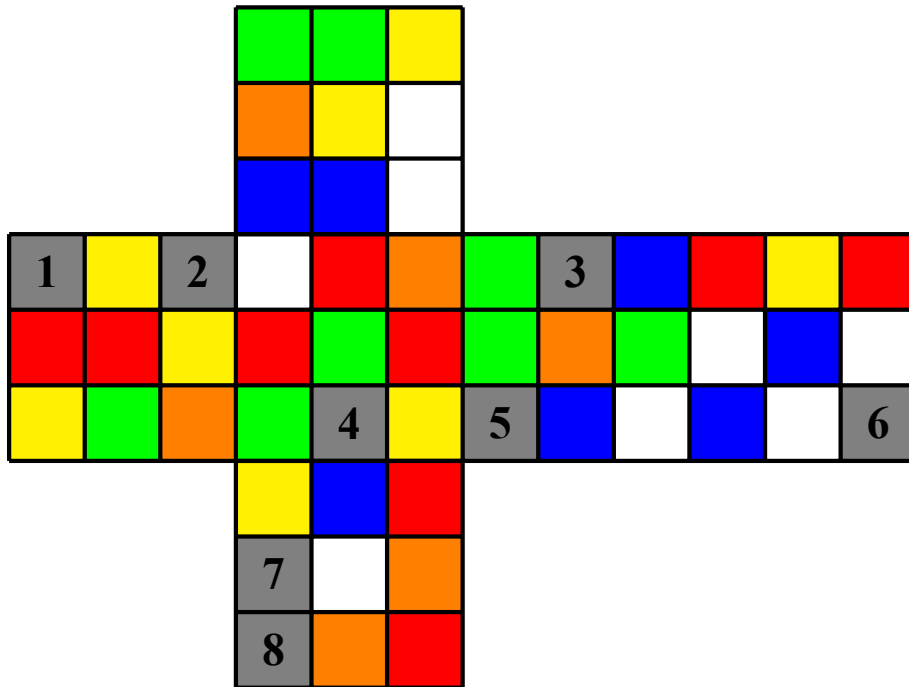
**Solution 35: U F R2 D2 F L B D' L B' R2 L U2 R2 F' R U2 B F' D' Rw Uw2**

**No. 36      Difficulty: ★★**



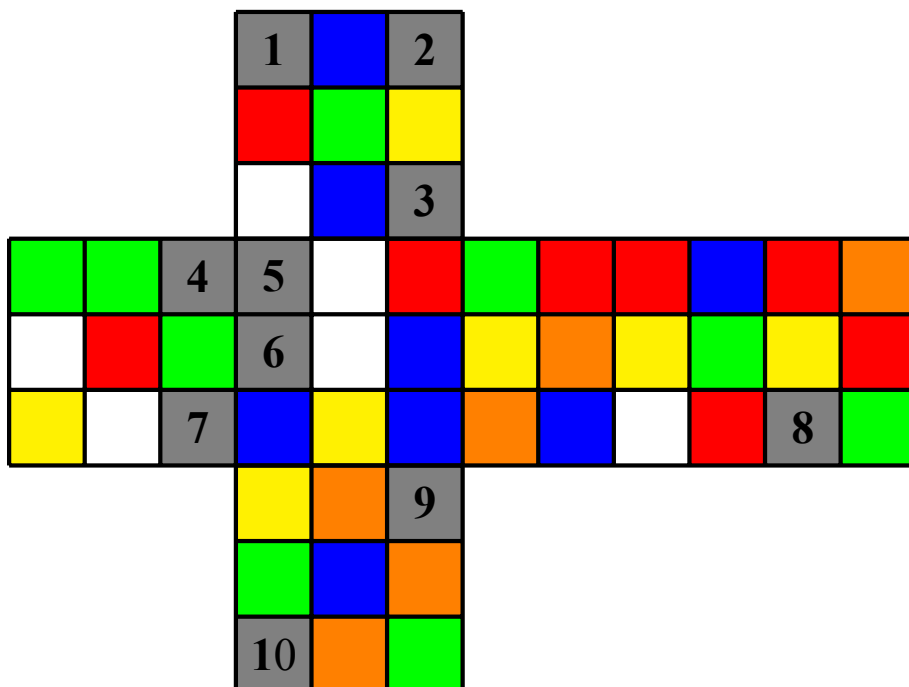
**Solution 36: B2 L' D2 U2 L' D2 R' B2 U2 L' R D' U2 B' U' F' L' R U' F' Uw2**

**No. 37      Difficulty: ★★**



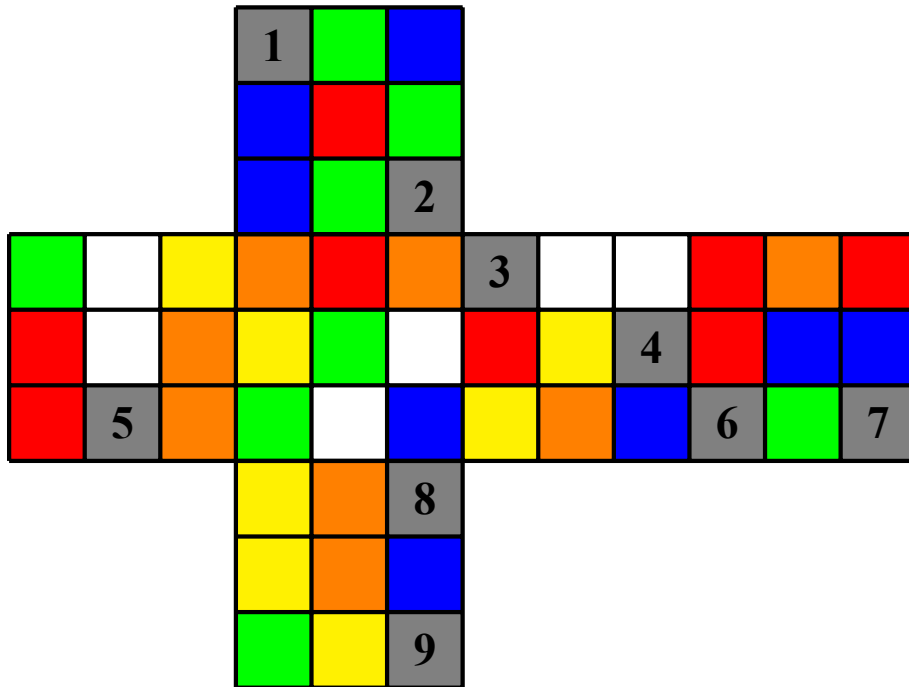
**Solution 37: D' B2 R' U L2 U B' L F' B' L2 F' D' B' F' D' L2 R' F R' Uw**

**No. 38      Difficulty: ★★**



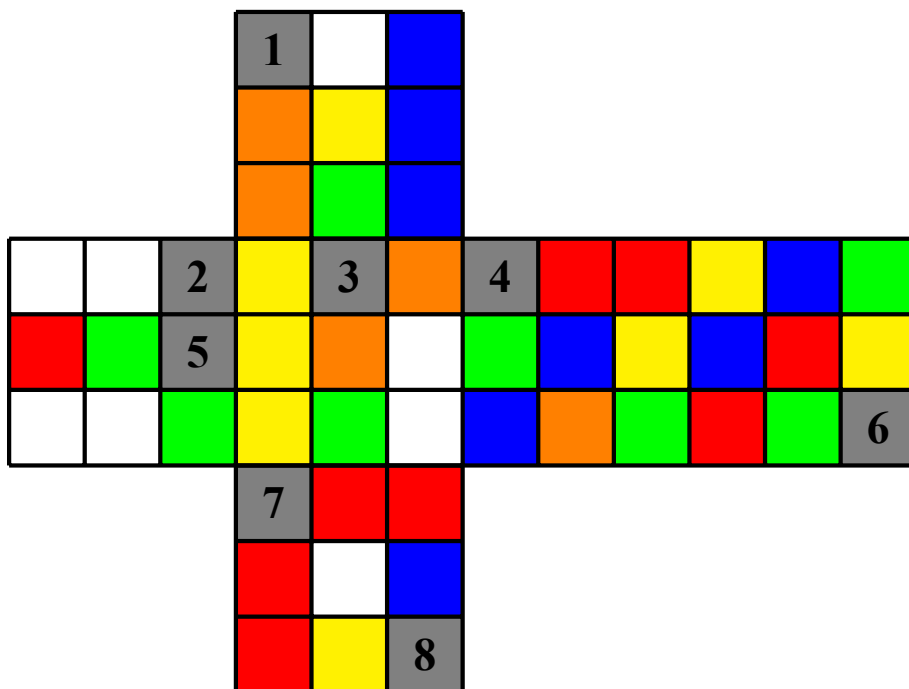
**Solution 38: B' R2 U D' B2 D' U' L2 U R U R2 B2 L' F2 U' R' L B2 F Fw' Uw**

**No. 39**      **Difficulty: ★★**



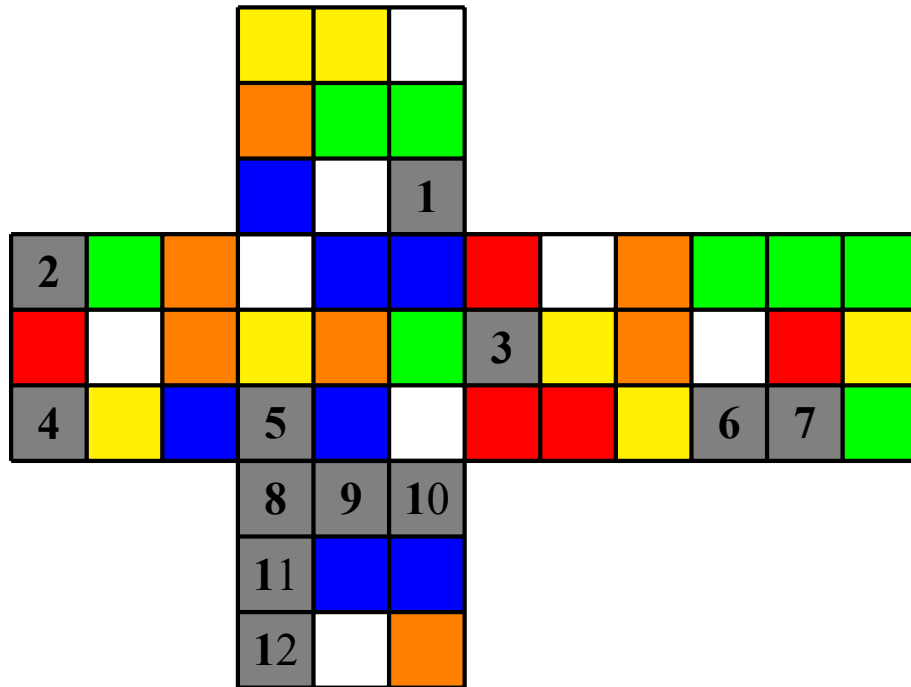
**Solution 39:** U B R2 B2 F L2 D' R2 F' L2 D' R2 D' F2 L' U2 L' U' D' R Rw Uw

**No. 40**      **Difficulty: ★★**



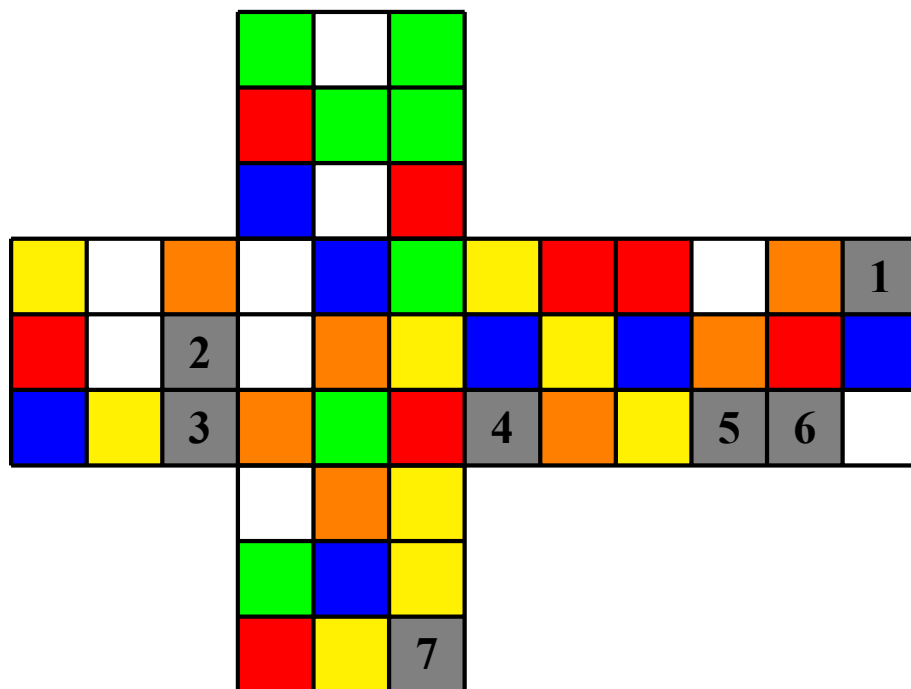
**Solution 40:** U2 F D2 U L R2 F L' U' B U R D' B' U2 B' D' B2 D L Uw2

**No. 41      Difficulty: ★★**



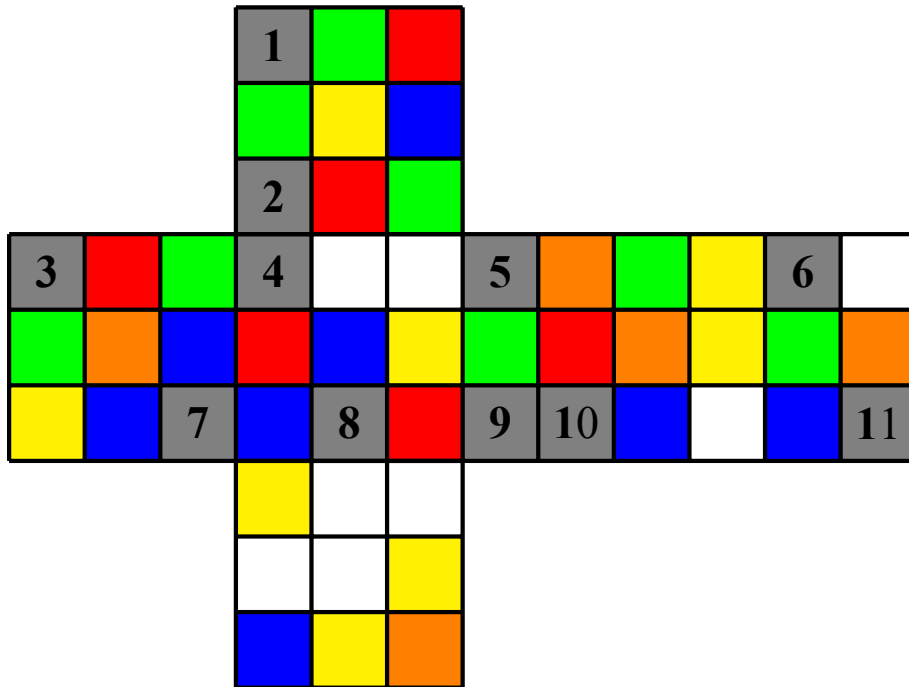
**Solution 41: D' L R2 B L' D U2 R U' L R' F' L' U' L F U' B F' R2 Fw' Uw2**

**No. 42      Difficulty: ★★**



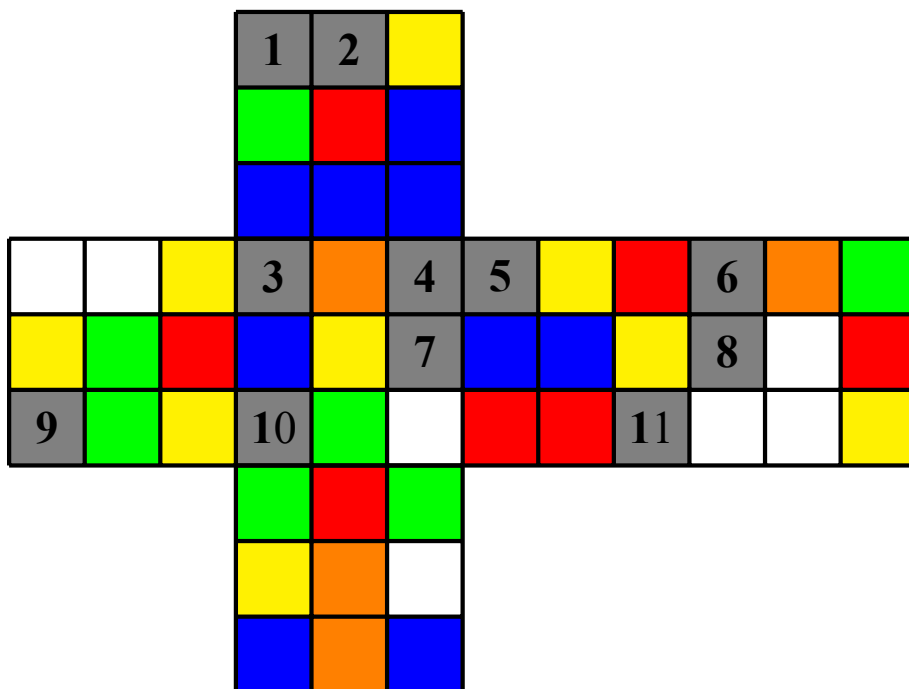
**Solution 42: B' L2 B' U2 F2 L' U B2 R2 D B' R' L2 D2 F' R2 D2 F R2 U2 Fw' Uw2**

**No. 43      Difficulty: ★★**



**Solution 43: D B' F' D' R2 L' U2 L' B2 L' D2 F2 B R' B' F D F' U2 F2 Uw'**

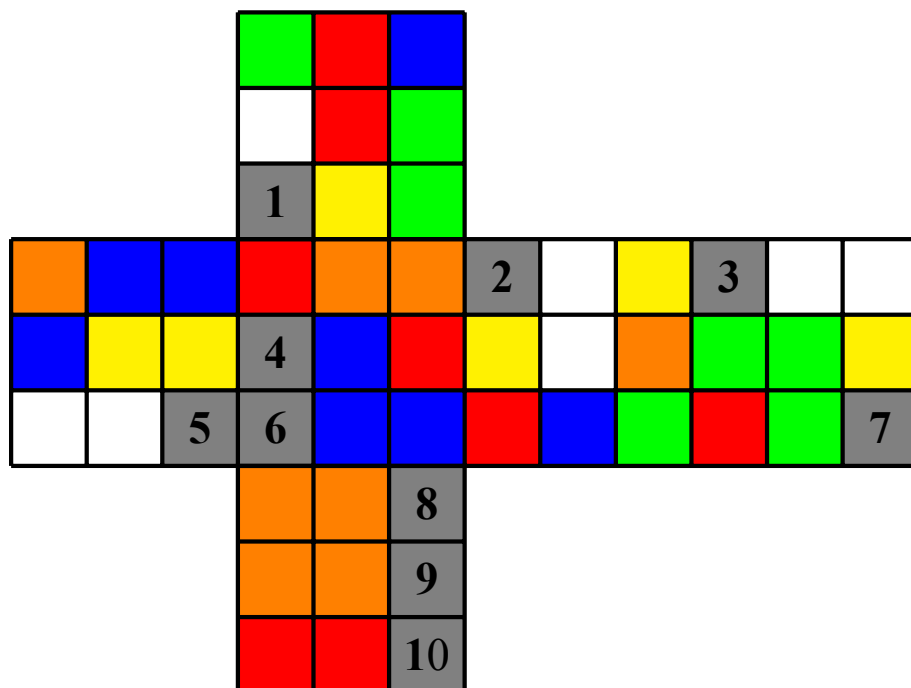
**No. 44      Difficulty: ★★**



**Solution 44: L' F2 L F R2 D2 R B' D B L D2 U2 F' L2 D' F2 U L2 D2 Rw Uw2**

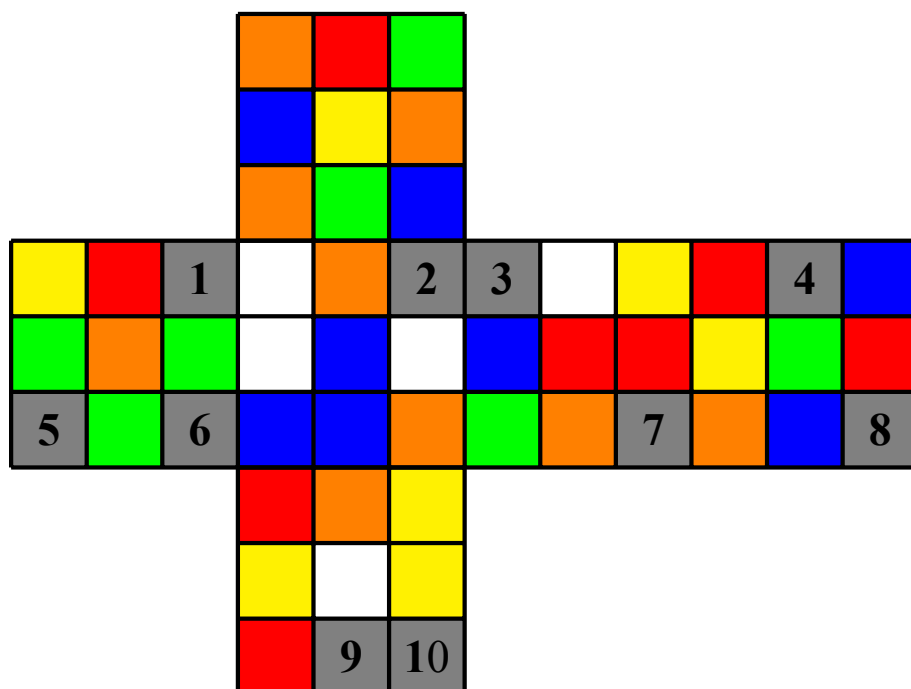


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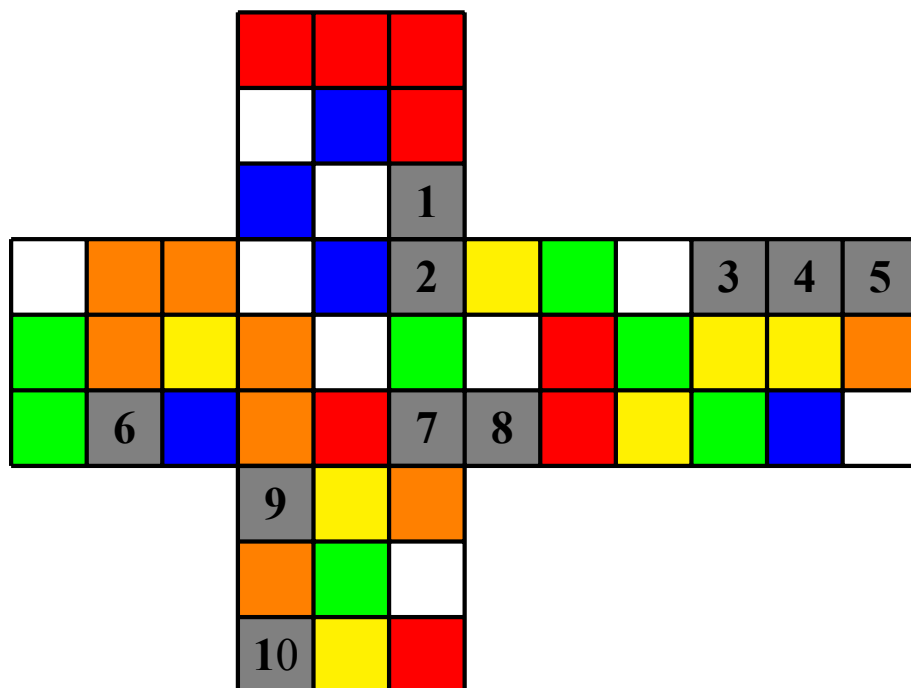
**Solution 45:** D2 R2 F2 R2 F' U' L F2 B2 L R2 F D B2 R L F2 D2 R2 F' Rw Uw'

**No. 46**      **Difficulty: ★★**



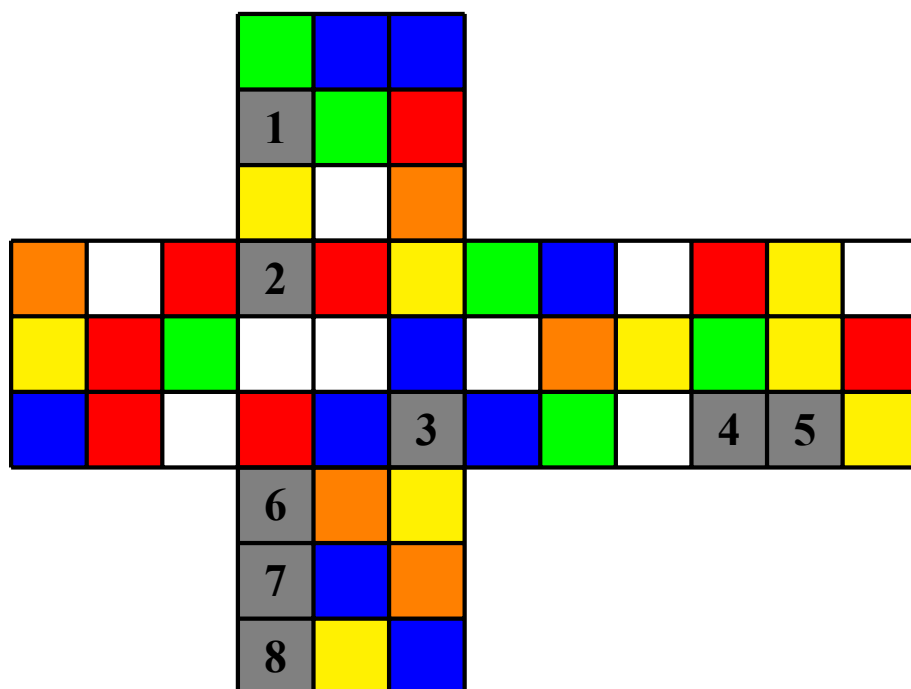
**Solution 46:** U R F U' B2 D2 L F2 R2 U F' L B2 F R2 U' R F' L' D' Uw'

**No. 47**      **Difficulty: ★★**



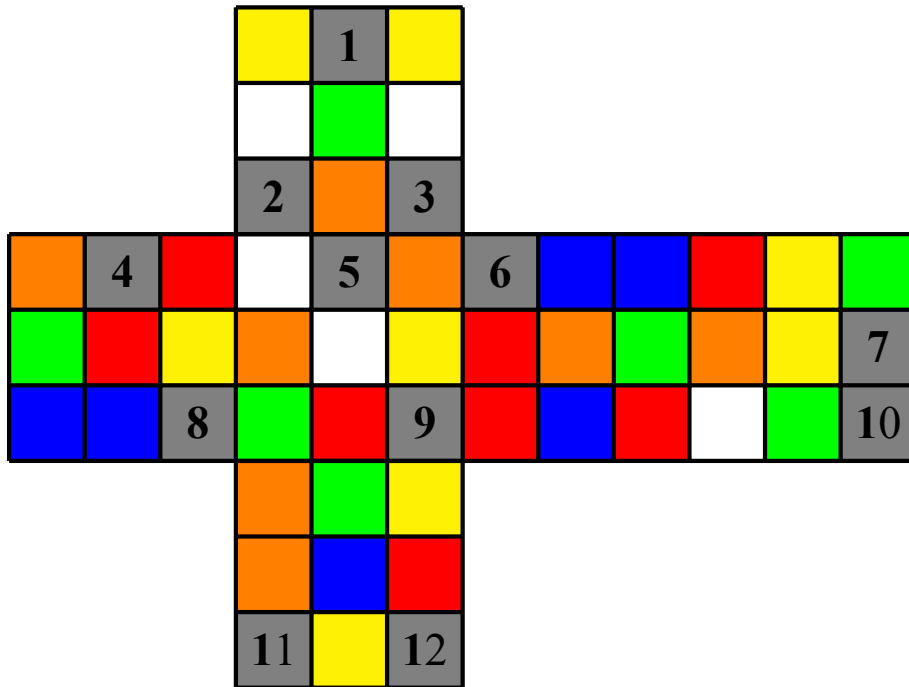
**Solution 47: L2 D2 L2 B' F D F' L B D2 U2 R2 B' U R2 B' R2 F' R2 L' Fw Uw'**

**No. 48**      **Difficulty: ★★**



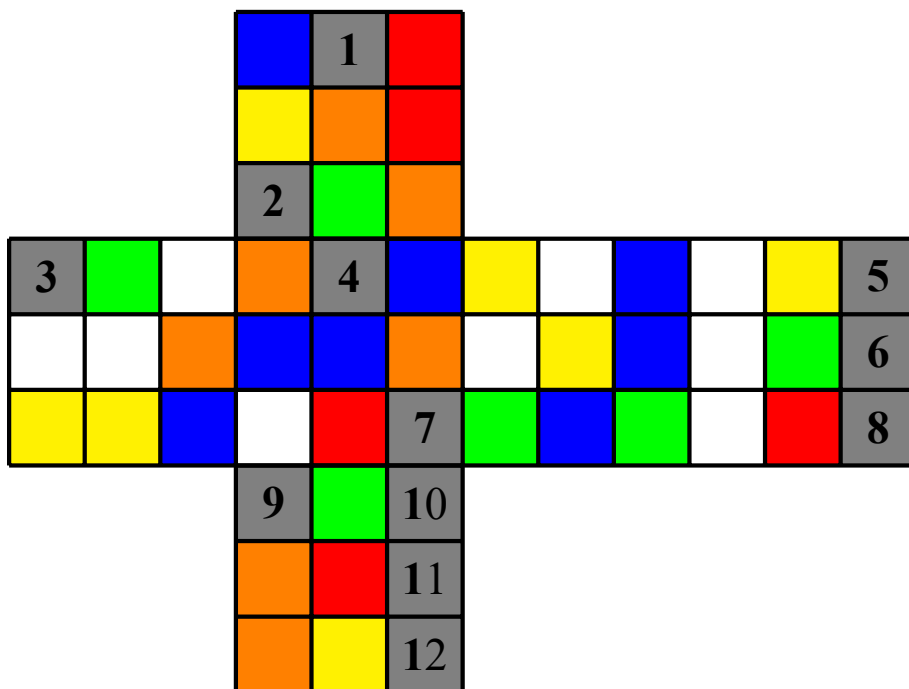
**Solution 48: L B2 R B' F' U L2 R' F R F U2 L' F2 B2 L2 B F U' R' Fw' Uw**

**No. 49      Difficulty: ★★**



**Solution 49: F R2 L2 U B' U F U' B' L R' U D' R2 B2 D' U' R' D L Fw' Uw**

**No. 50      Difficulty: ★★**



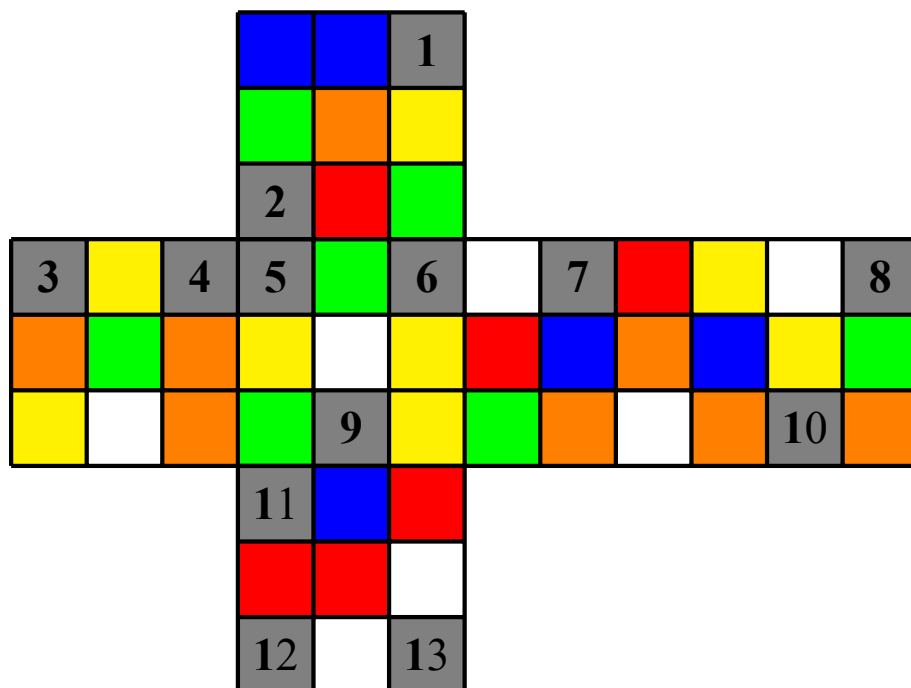
**Solution 50: U D L F B2 R2 B2 L' D2 L B' L D F2 D' B2 R2 D U' B2 Rw' Uw'**

[illegible]

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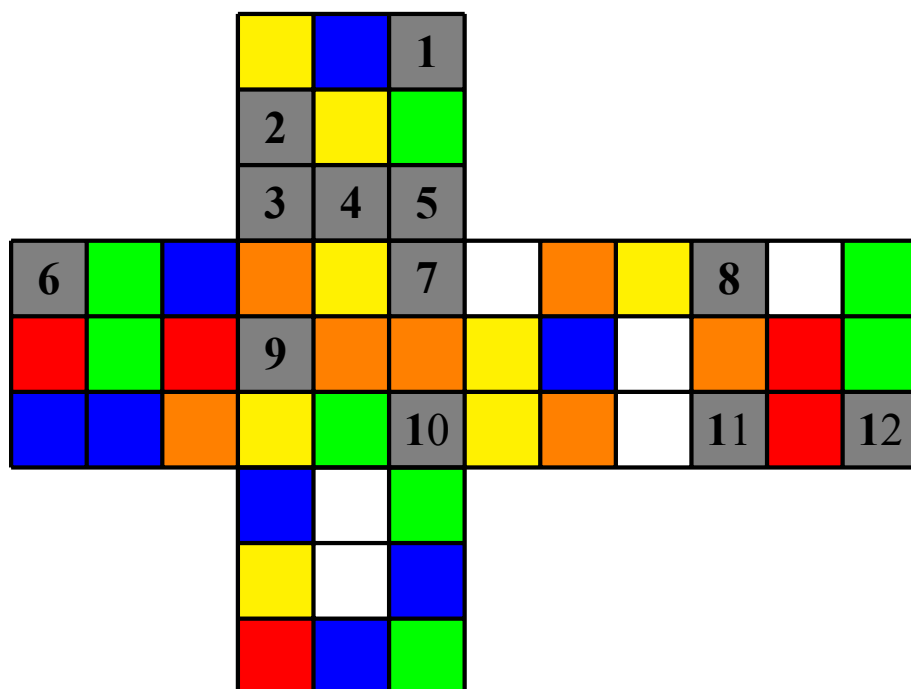
28

**No. 55**      **Difficulty: ★★★**



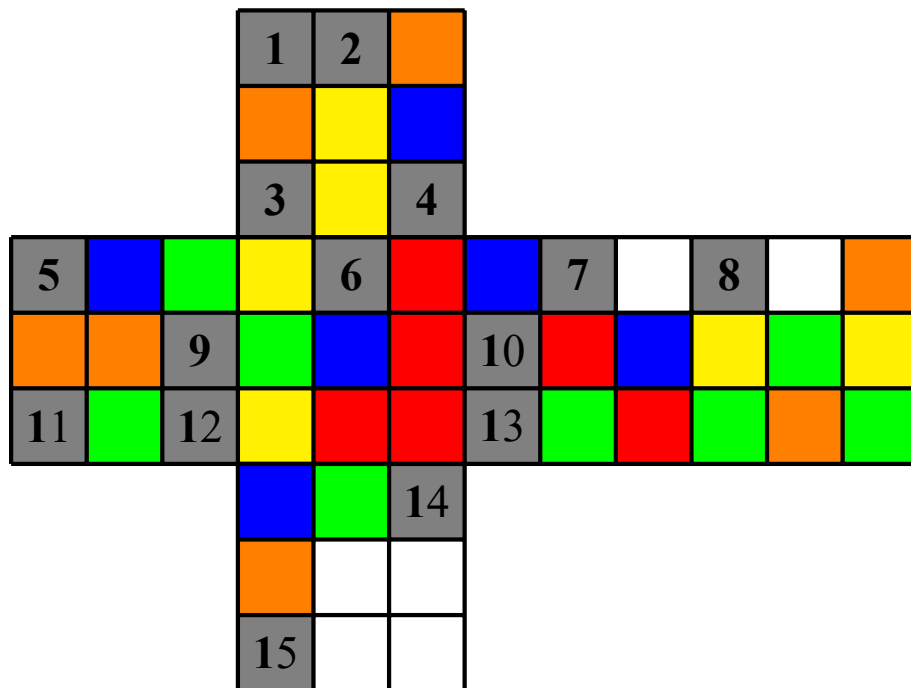
**Solution 55: D' B F R' F' D' B' U' L' R2 B2 F R2 B R B2 F2 R2 B2 U' Rw' Uw2**

**No. 56**      **Difficulty: ★★★**



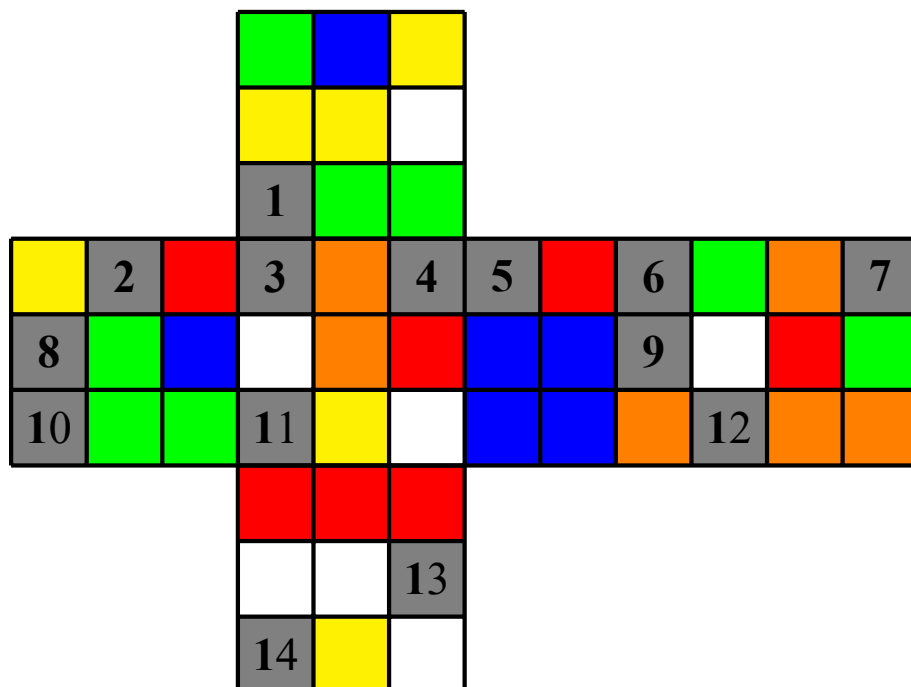
**Solution 56: R' U F R2 D2 U2 R B' U2 B' D' F B' R' U' R F D U F Uw2**

**No. 57**      **Difficulty: ★★★**



**Solution 57:** F B' R D2 U' F L2 U2 B2 D2 L2 F B2 L' B' L2 R F' L2 U2 Uw'

**No. 58**      **Difficulty: ★★★**



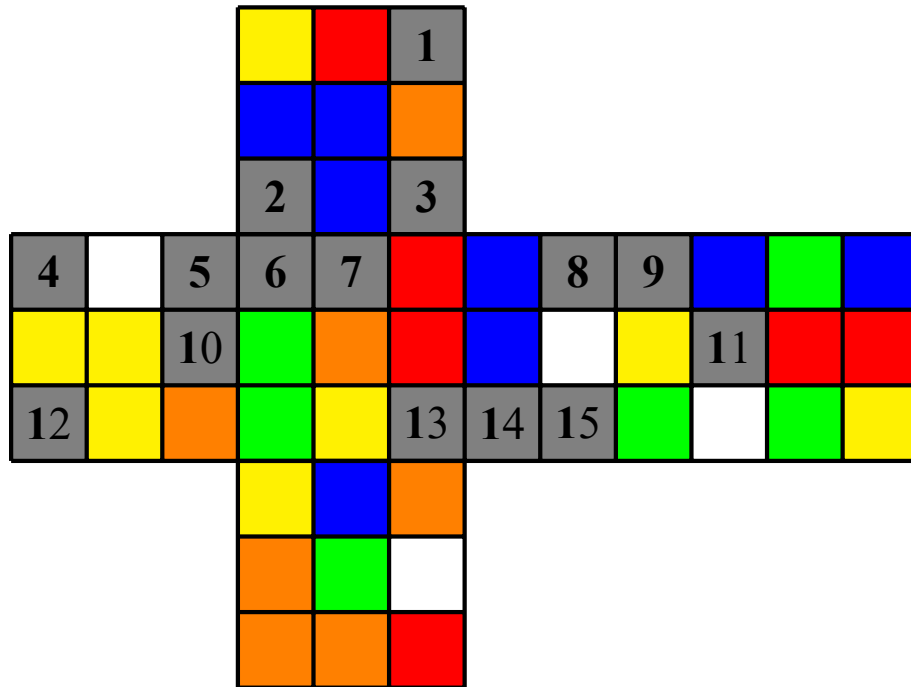
**Solution 58:** U L2 B2 R' D F2 B L D' U2 F' U' L U2 F' R2 U L U2 L' Uw2

[illegible]

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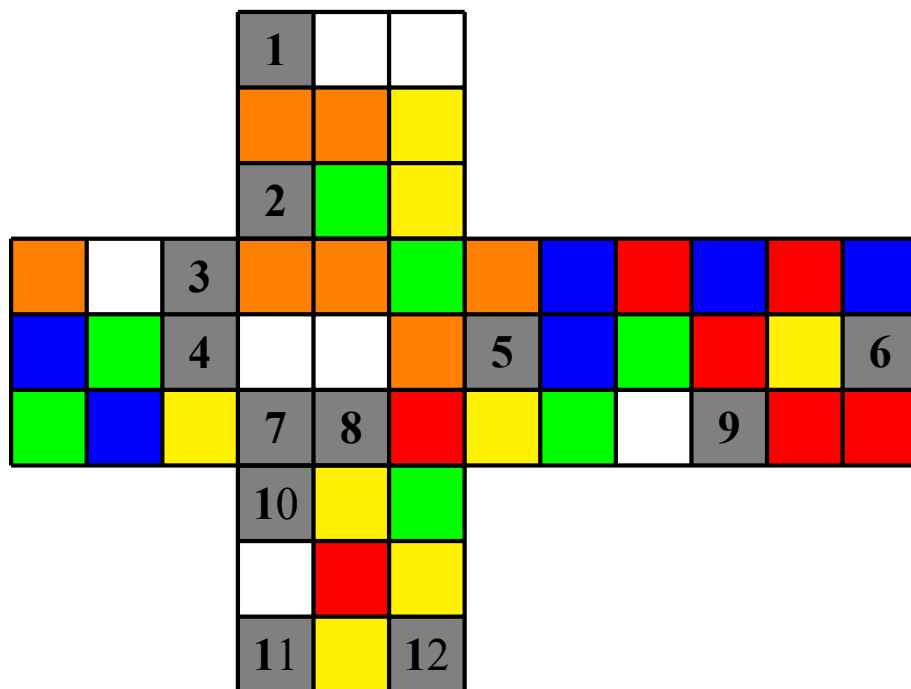


**No. 61      Difficulty: ★★★**



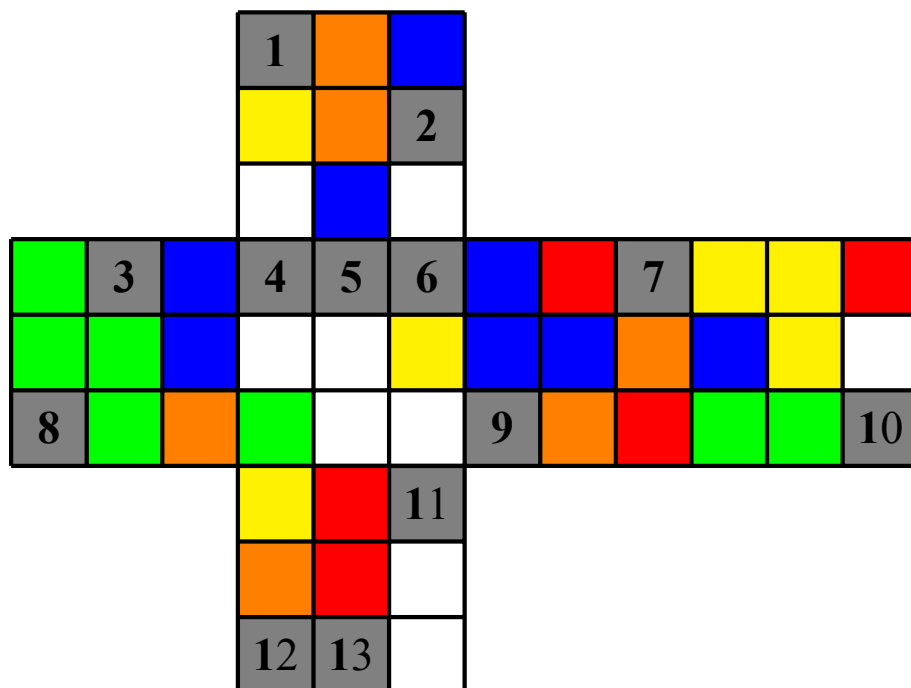
**Solution 61: L' D F' R U' R U' F' L2 U' R2 B2 L' D B' L' U D' L2 F2 Fw Uw2**

**No. 62      Difficulty: ★★★**



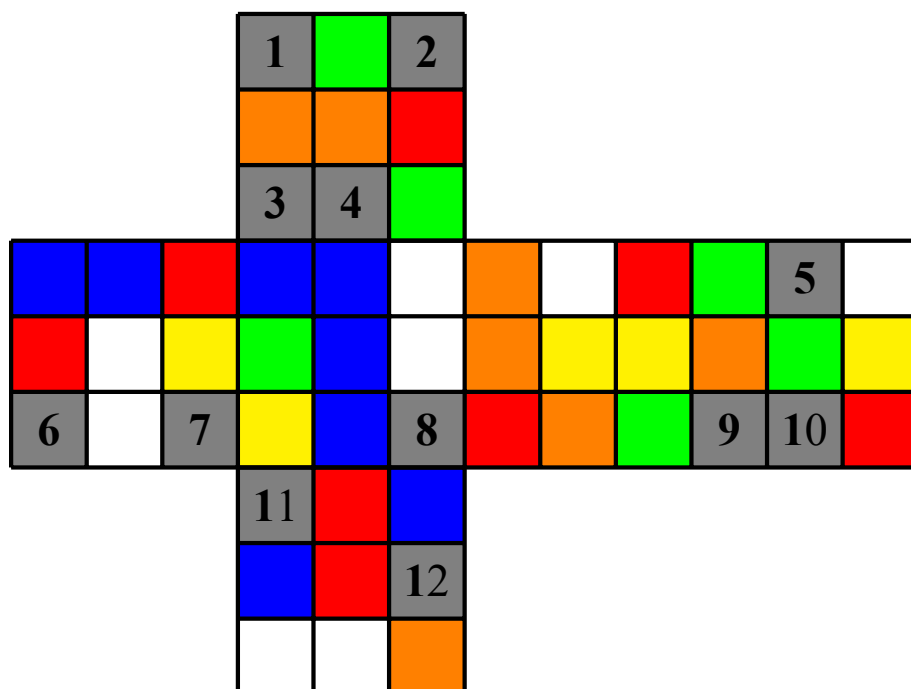
**Solution 62: B' R2 B2 D' U' F' U L D F' U L F2 B2 D B2 R L' B' R' Rw' Uw2**

**No. 63      Difficulty: ★★★**



**Solution 63: B' U B F2 U2 F L U' F2 D' B2 F2 R2 B2 D R D2 R2 U' B' Rw' Uw2**

**No. 64      Difficulty: ★★★**



**Solution 64: R B R2 D' R F L2 B' R2 D2 U2 L R2 D F' L2 U2 B' R B' Rw' Uw'**

The image shows a 15x15 grid with a cross-shaped pattern of colored squares. The grid is composed of 225 squares in total. The cross shape is formed by 25 squares, with 11 squares in the center. The squares are colored as follows:

- Gray squares (numbered 1-11):** These are located at the intersections of the cross arms. The numbers are: 1 (top), 2 (top-center), 3 (left), 4 (top-right), 5 (right), 6 (right-center), 7 (left-center), 8 (bottom-right), 9 (bottom), 10 (bottom-center), and 11 (bottom).
- Other colored squares:** The remaining squares in the cross are colored in a repeating pattern of red, yellow, and blue. The colors are: Red (top-right, top-center, right-center, bottom-center, bottom-right), Yellow (top, top-center, right, bottom-center, bottom), and Blue (top-right, top-center, right-center, bottom-center, bottom-right).

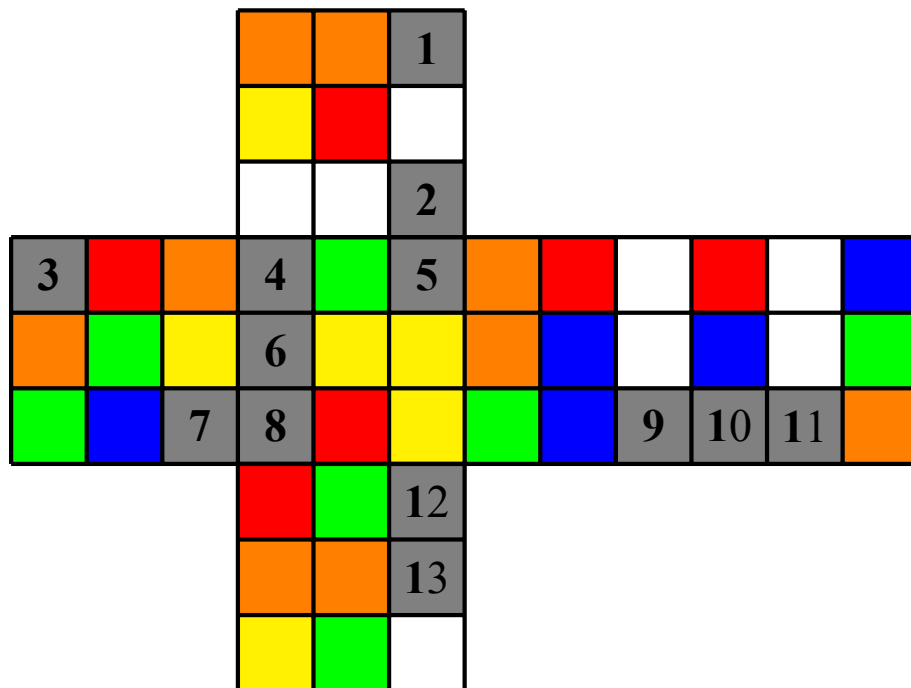
The image shows a 15x15 grid with a cross-shaped pattern of colored squares. The grid is composed of 225 cells. The central cross is formed by 15 colored squares (yellow, blue, red, green, orange) and 14 gray squares numbered 1 through 14. The numbered gray squares are located at the intersections of the cross arms. The colored squares are arranged in a specific pattern: a horizontal row of 15 squares (yellow, blue, red, green, orange, yellow, blue, red, green, orange, yellow, blue, red, green, orange) and a vertical column of 15 squares (yellow, blue, red, green, orange, yellow, blue, red, green, orange, yellow, blue, red, green, orange). The numbered gray squares are located at the intersections of the cross arms: 1 (top), 2 (left), 3 (left), 4 (left), 5 (right), 6 (right), 7 (right), 8 (right), 9 (right), 10 (left), 11 (right), 12 (bottom), 13 (bottom), 14 (bottom).

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[illegible]

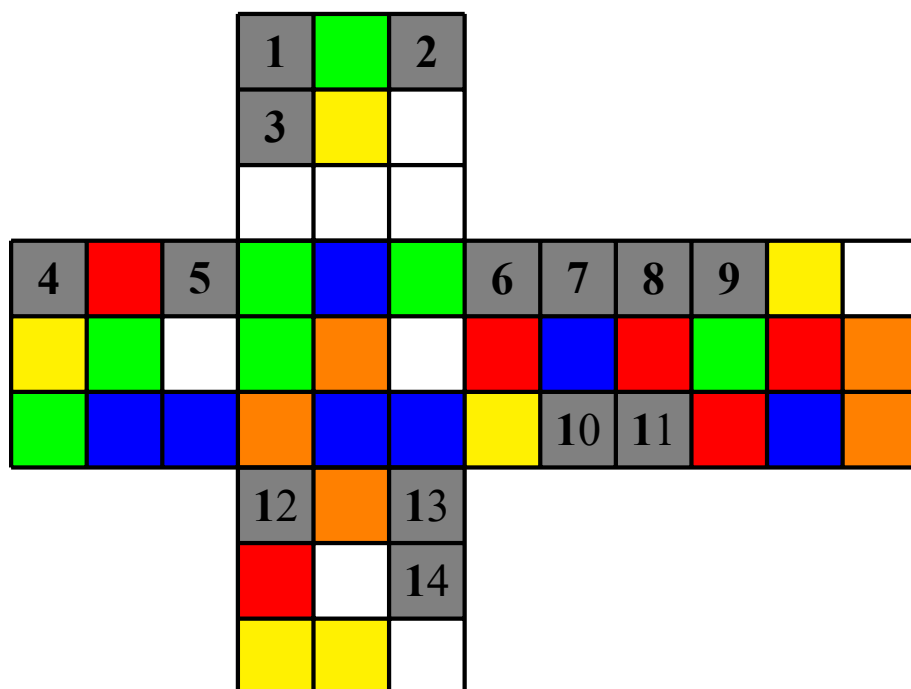
35

**No. 69      Difficulty: ★★★**



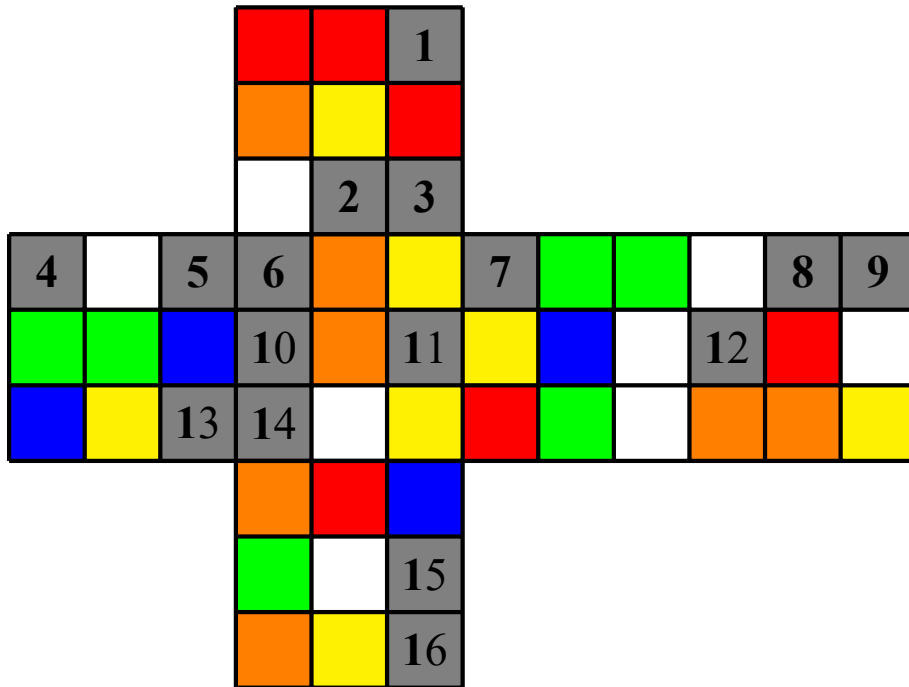
**Solution 69: R' U2 L' F2 U' D' L B2 U R2 B' D L2 U' F2 L2 D U2 R F2 Rw Uw2**

**No. 70      Difficulty: ★★★**



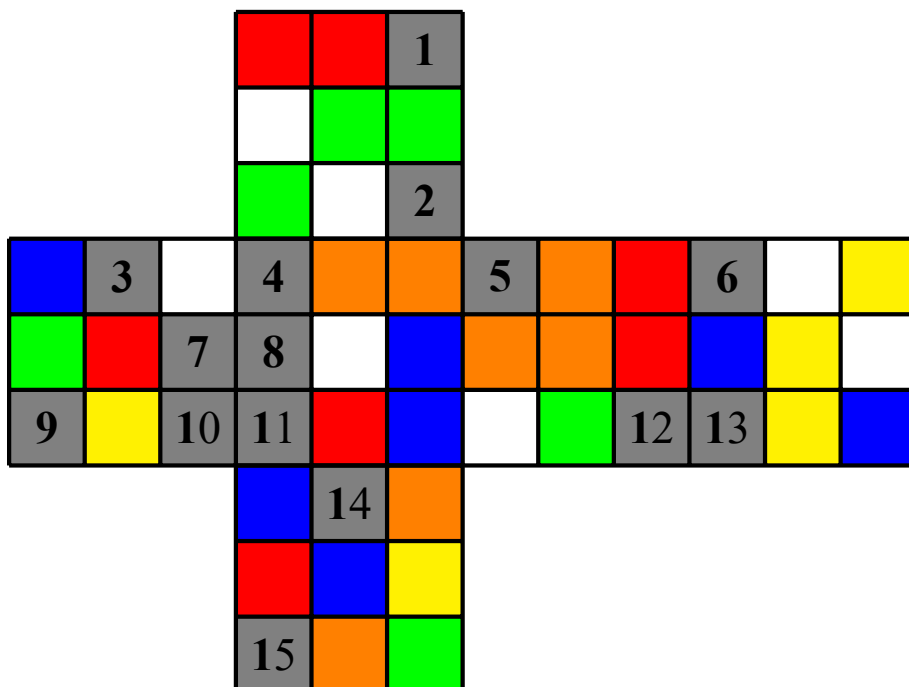
**Solution 70: R F L2 D' F2 D2 U B F' L2 U' D' F' R' U2 D' F L2 B2 U Uw2**

**No. 71**      **Difficulty: ★★★★★**



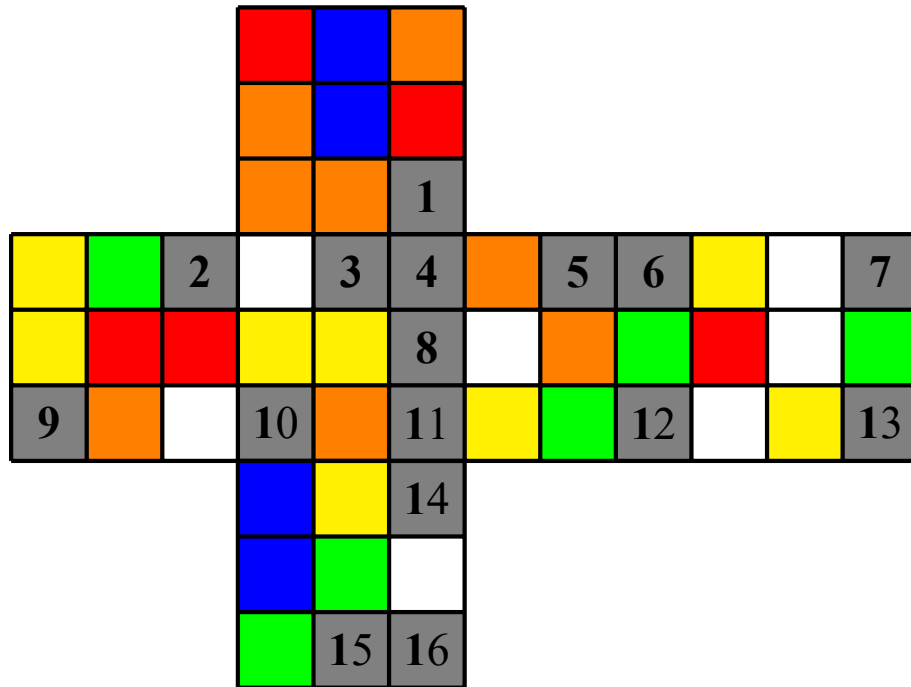
**Solution 71: L2 R' B F U B2 D' B' F2 L' F2 L B' R2 D' U L2 R F' D2 Uw2**

**No. 72**      **Difficulty: ★★★★★**



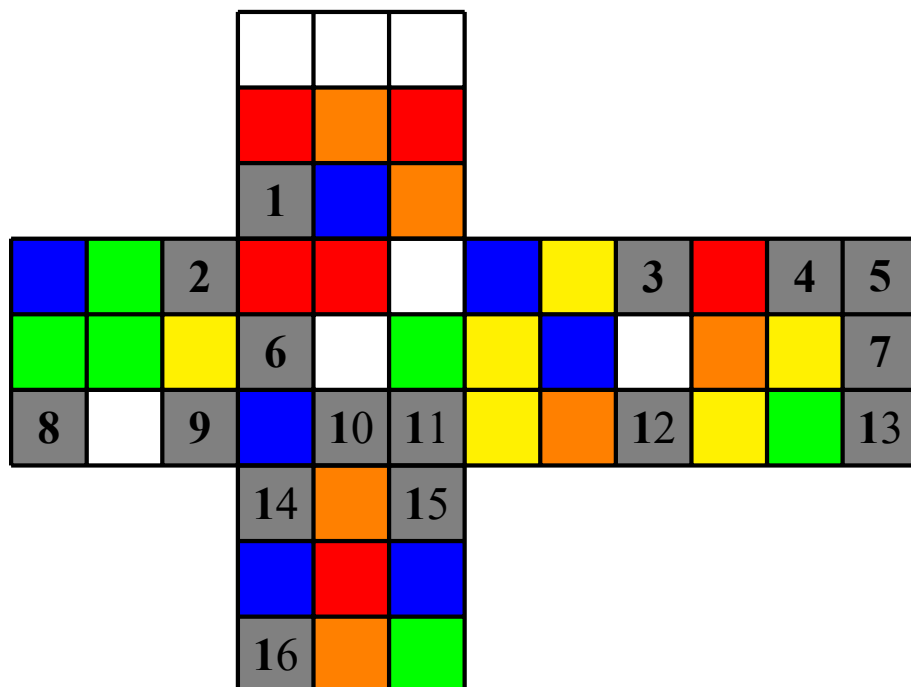
**Solution 72: R2 D' B2 D2 L F' B L2 D R U2 D R D U B' F2 U B' U2 Fw' Uw**

**No. 73**      **Difficulty: ★★★★★**



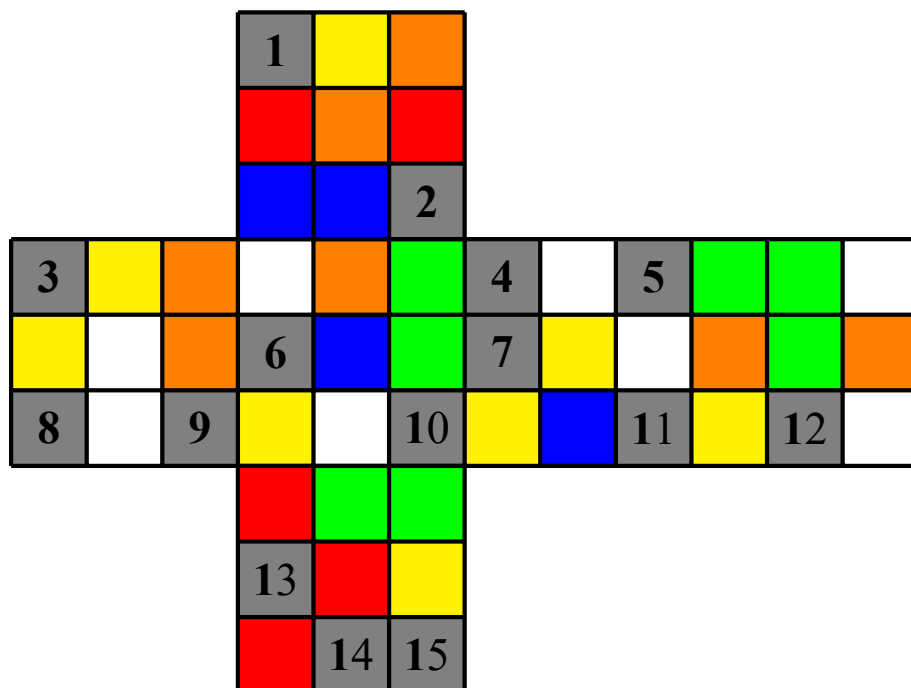
**Solution 73: R2 L2 B' F' R2 D2 B U2 D B' R' D F2 D' L U B F' R B Fw Uw**

**No. 74**      **Difficulty: ★★★★★**



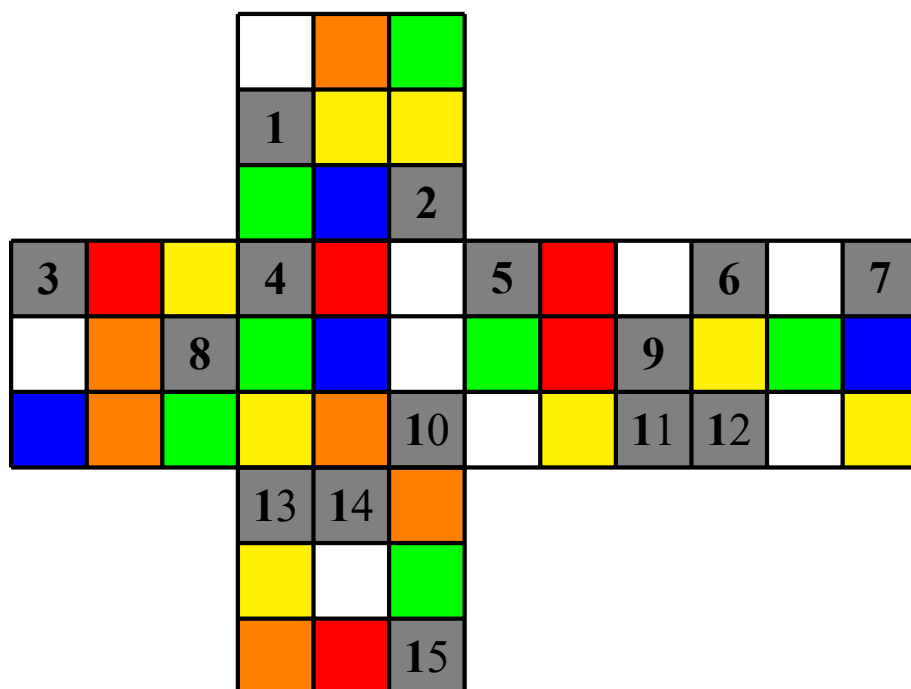
**Solution 74: B L2 D F2 R F D2 L2 B2 D R U2 D2 B L D U2 L R D2 Rw' Uw2**

**No. 75**      **Difficulty: ★★★★★**



**Solution 75: R2 F' D' R2 U2 F2 B2 R' U' R D' L' F2 B L D2 R D' R2 B' Rw' Uw'**

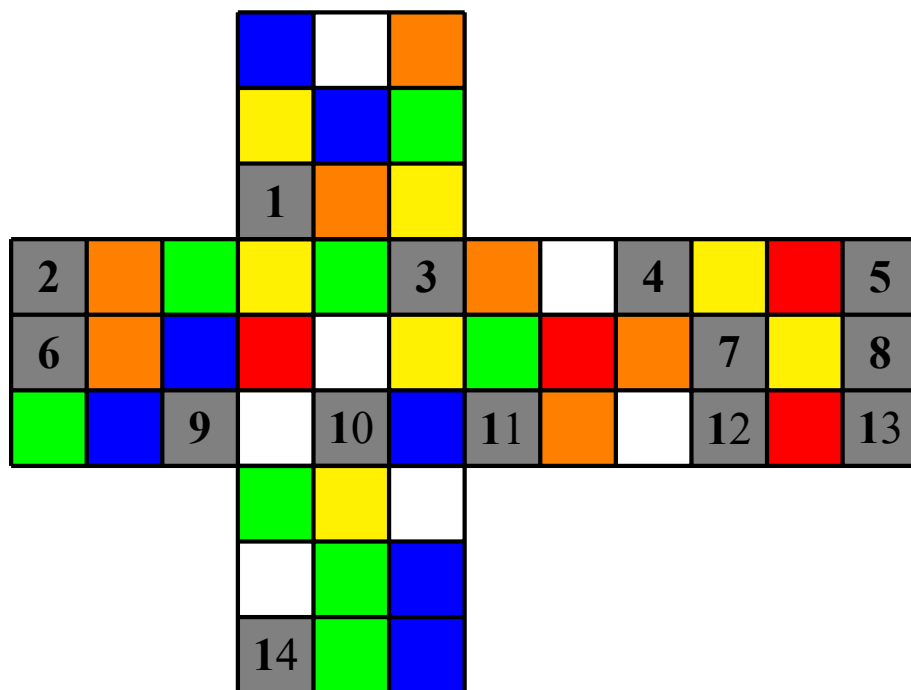
**No. 76**      **Difficulty: ★★★★★**



**Solution 76: B2 D' R' B2 F2 U' L' F' U B2 F L2 B L2 F B' R' F B R Uw'**

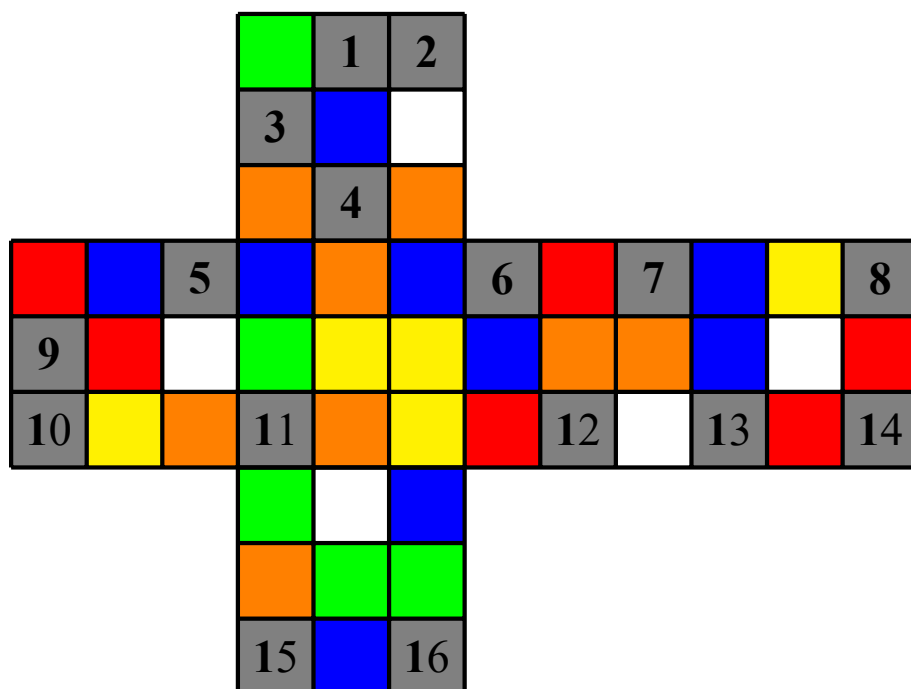


**No. 77**      **Difficulty: ★★★★★**



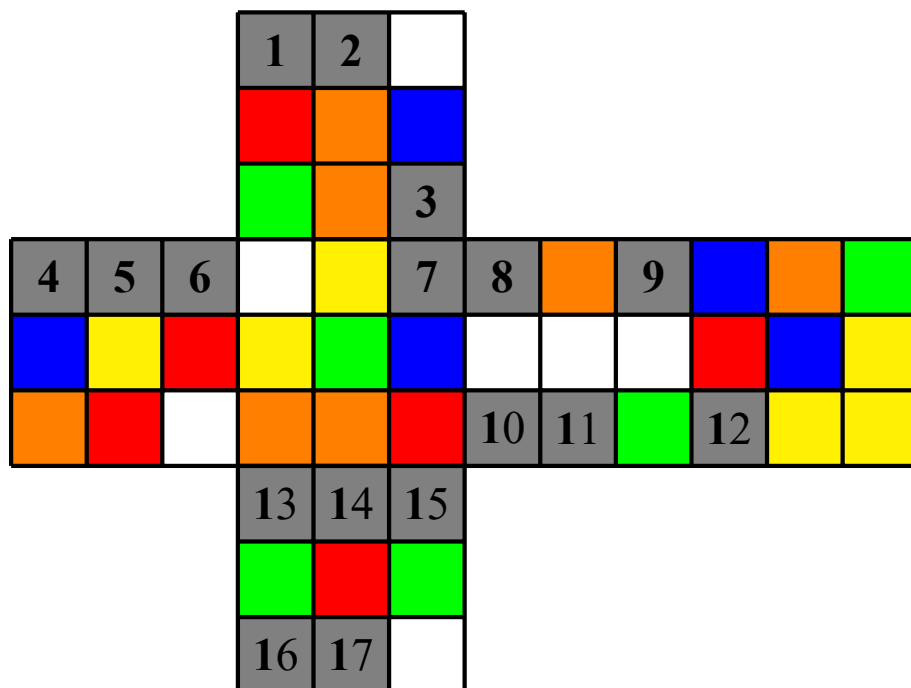
**Solution 77: D2 B2 F2 R2 L' D' F B' R' L F R B L' B' D U2 B2 F' L Fw Uw'**

**No. 78**      **Difficulty: ★★★★★**



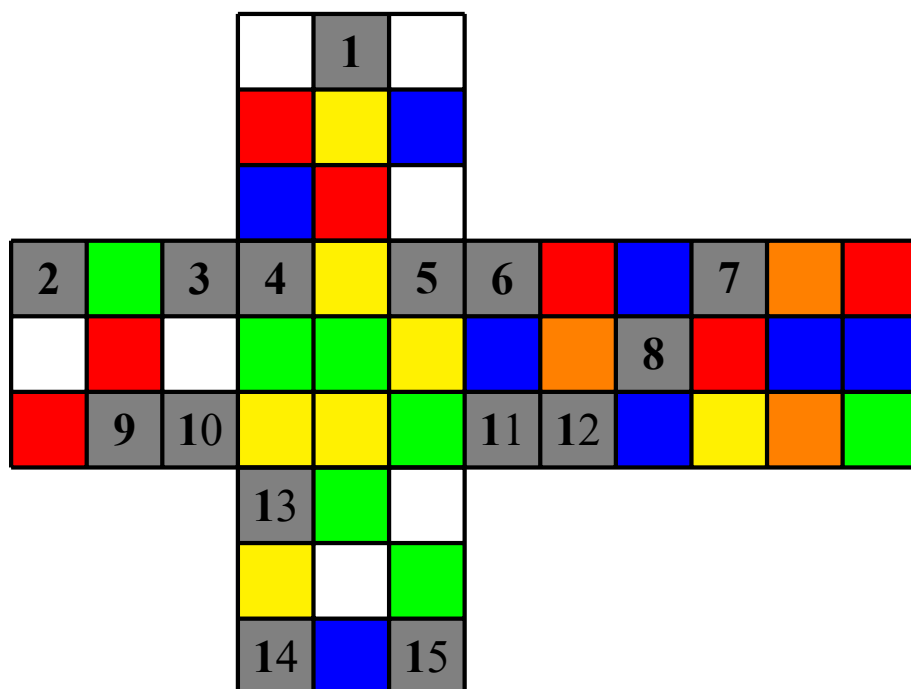
**Solution 78: D R2 U2 D L2 F2 U' D2 B2 D L2 U L F D2 B2 F' R2 F B Fw Uw**

**No. 79**      **Difficulty: ★★★★★**



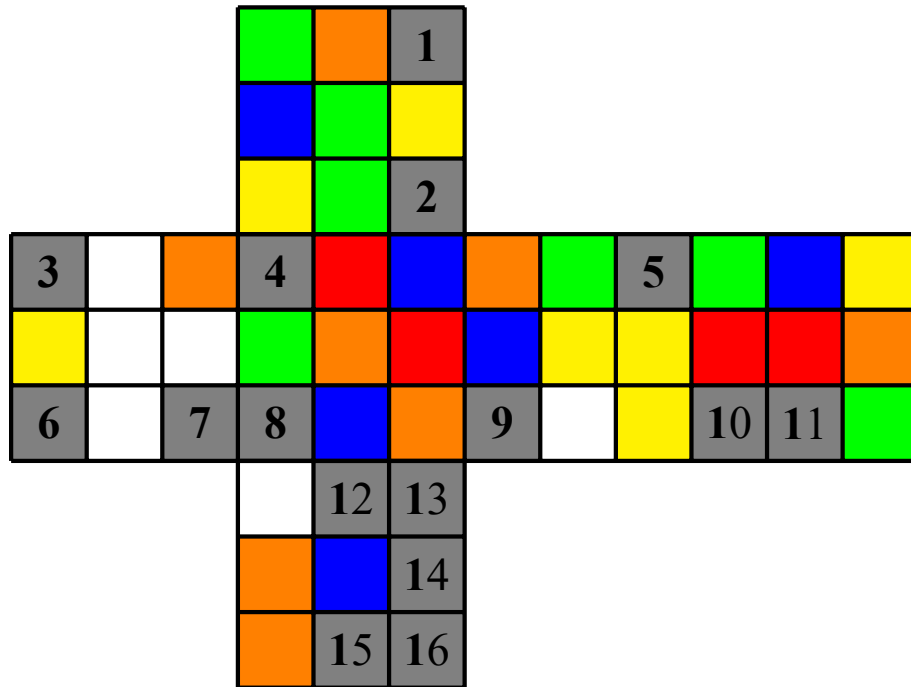
**Solution 79: L2 F' B' D' R' F' L' B F' U2 D' R U2 D2 F U2 B L' B2 D Rw' Uw**

**No. 80**      **Difficulty: ★★★★★**



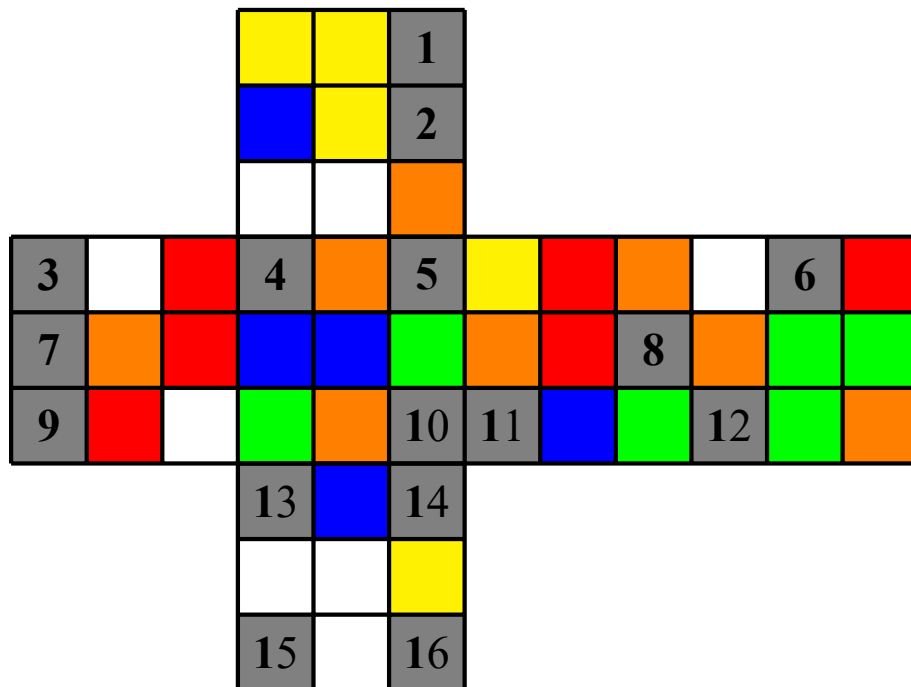
**Solution 80: D2 U2 R U2 F2 B U F2 L' B' D B2 L' B' F L' R F' L2 F2 Uw**

**No. 81      Difficulty: ★★★★★**



**Solution 81: L' F2 D' R F2 U B F2 D2 F2 R2 L2 D' U L2 B L2 D L D' Fw' Uw2**

**No. 82      Difficulty: ★★★★★**

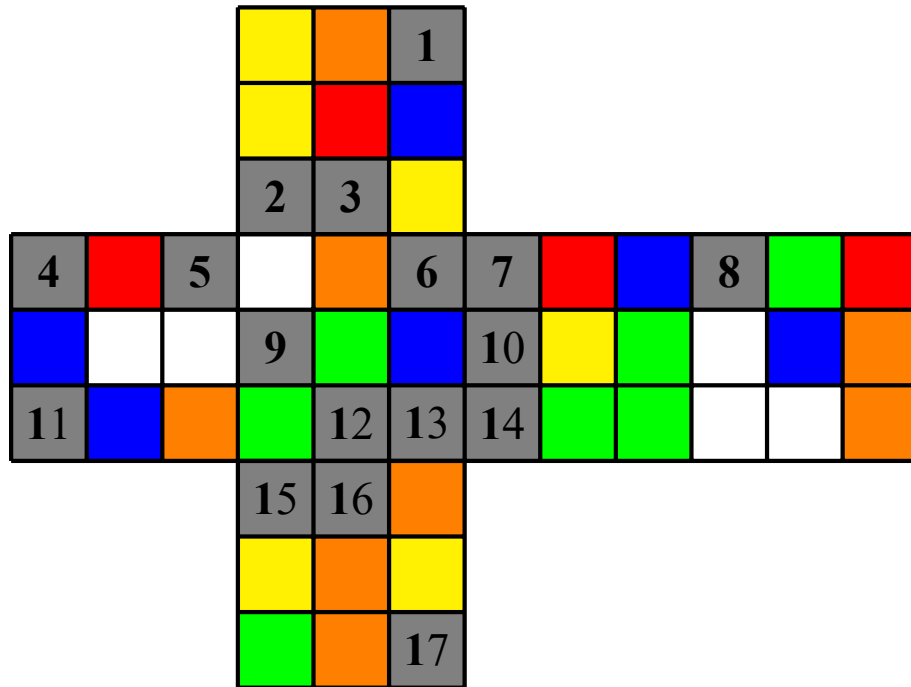


**Solution 82: U2 R2 B2 L' R2 B F2 L U' B2 F' U2 R' F L' D2 R D F' L' Uw'**

[illegible]

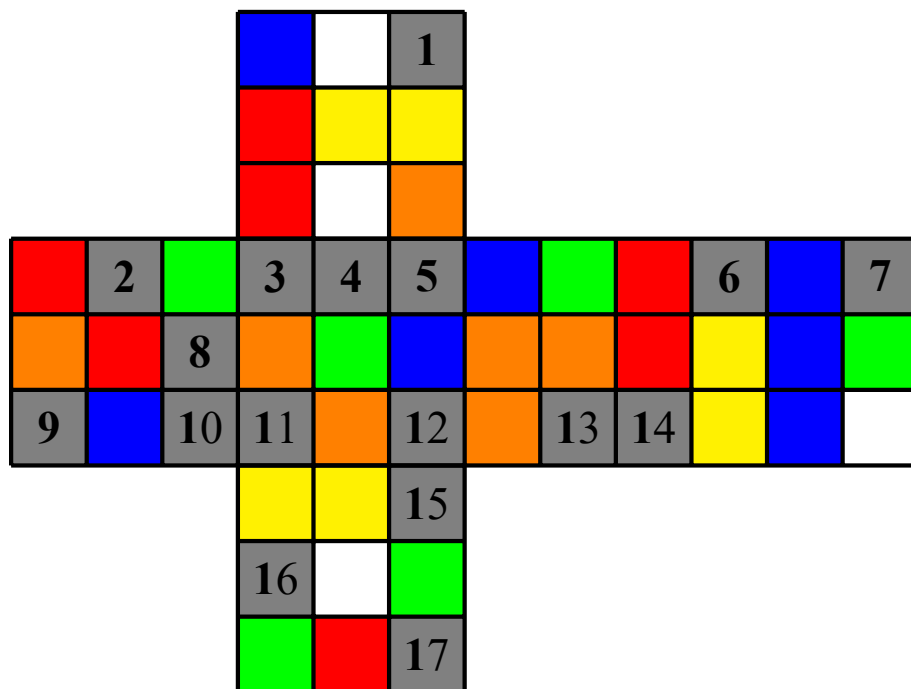
43

**No. 85      Difficulty: ★★★★★**



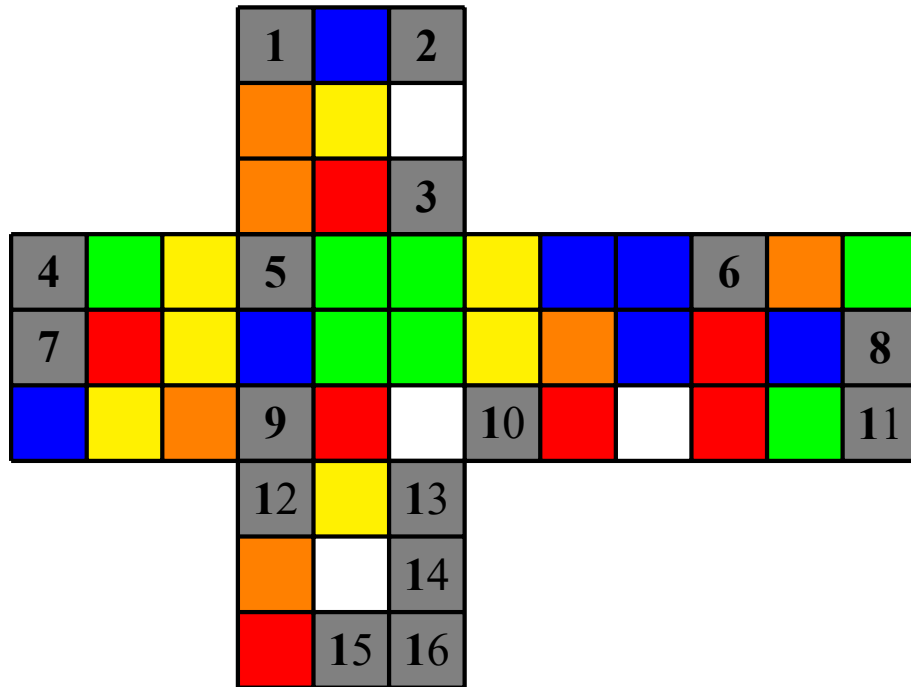
**Solution 85: B' L2 B F' L2 U2 L2 F U F2 L D' U' F' B R' B' R' B2 U2 Rw Uw**

**No. 86      Difficulty: ★★★★★**



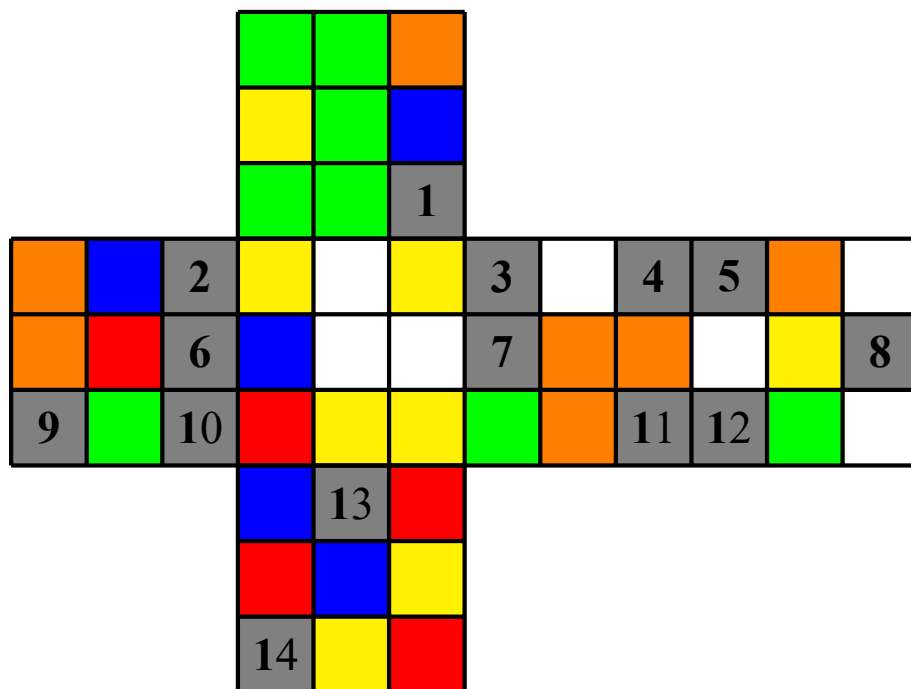
**Solution 86: L B' U' F R' U' B L' R' F' D U2 R' L' U' L2 B2 R2 B U Uw**

**No. 87**      **Difficulty: ★★★★★**



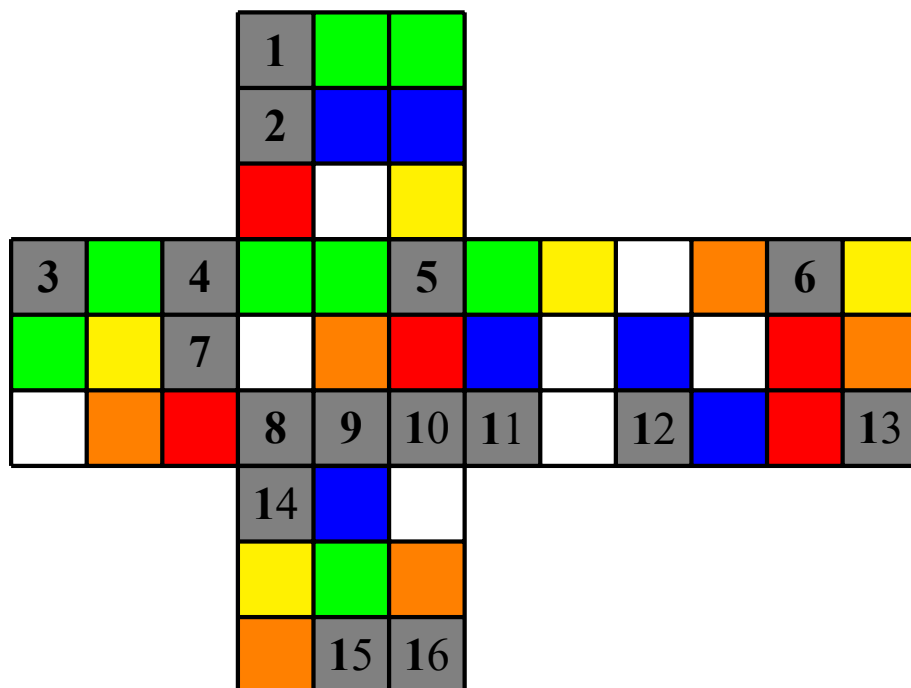
**Solution 87: R B' D2 R' F2 R' F2 L U' D R' D' R' F2 L B U' B' D' L' Uw**

**No. 88**      **Difficulty: ★★★★★**



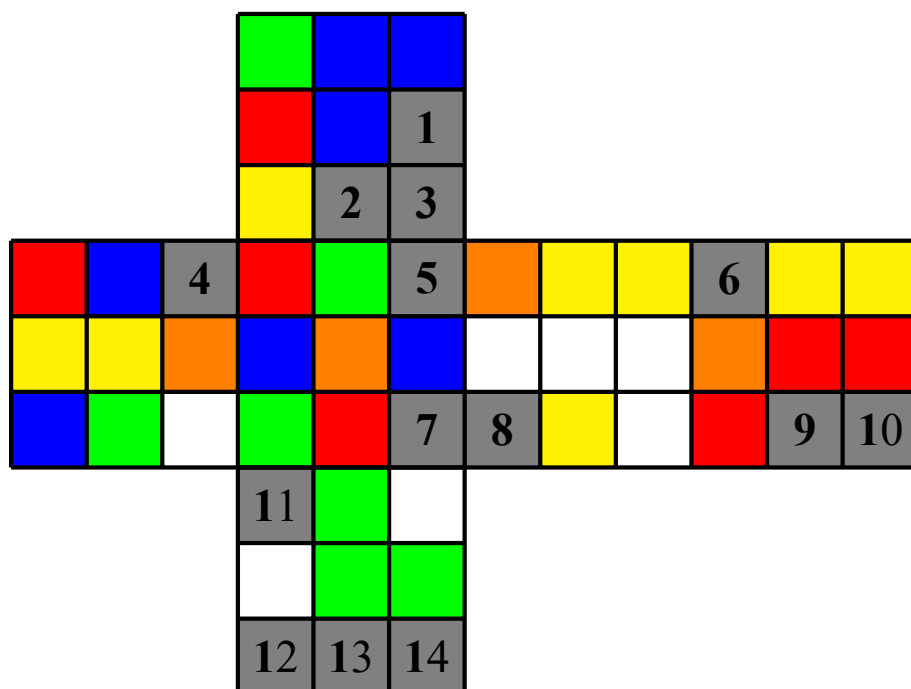
**Solution 88: F2 B2 U2 D2 R' F L D' R' F B2 R2 U' L' R' U' F2 L2 B L Fw' Uw**

**No. 89      Difficulty: ★★★★★**



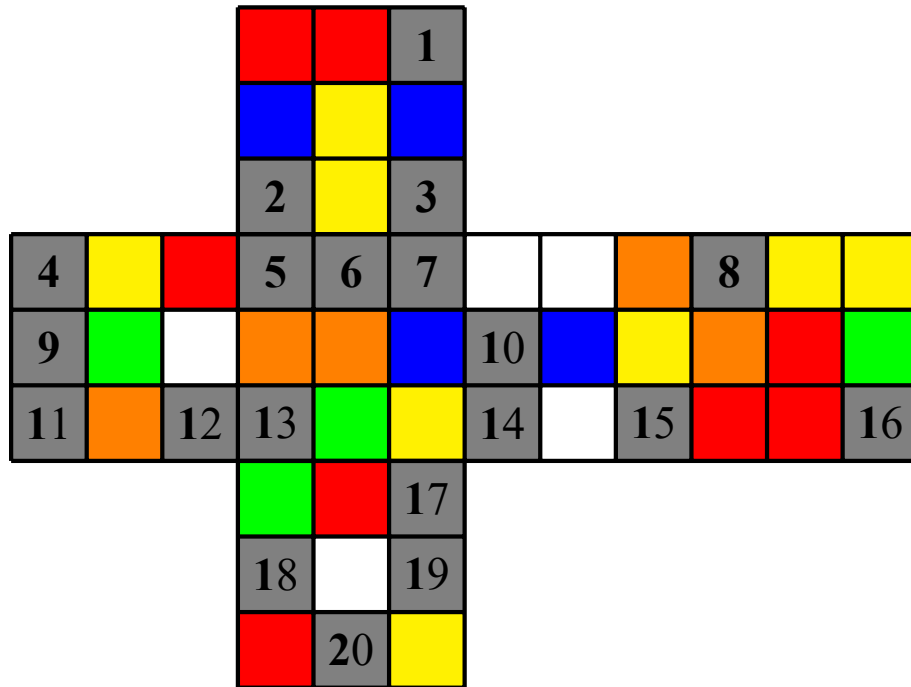
**Solution 89: R' F R' L B' L B' F2 L' B' F2 R' F2 L' U' B' U2 B D2 B' Fw Uw2**

**No. 90      Difficulty: ★★★★★**



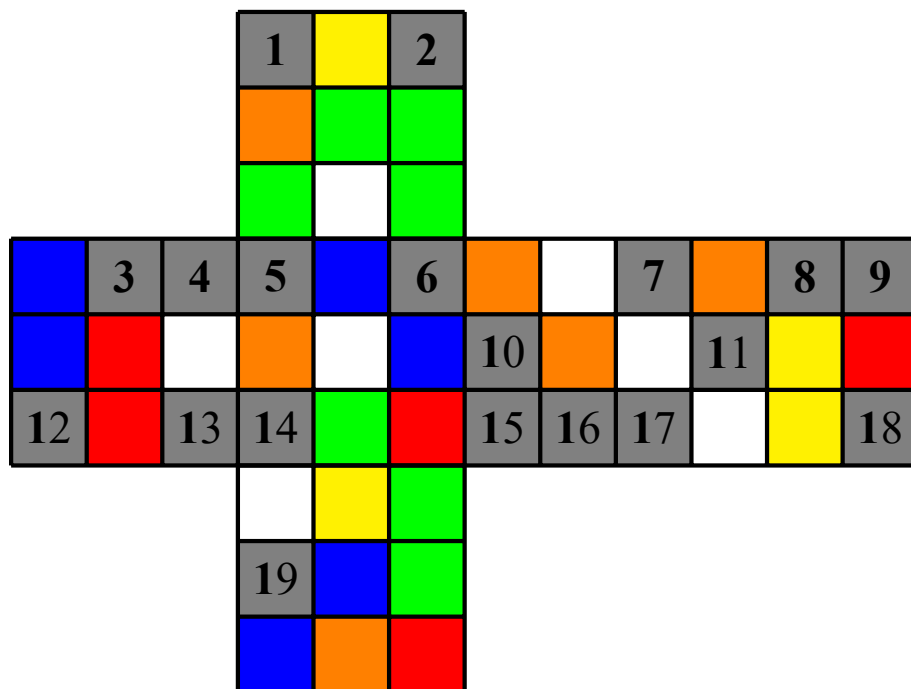
**Solution 90: D2 F2 D F2 D' U B2 D' U2 L2 D2 F2 U' B U B2 D2 R F2 U' Fw Uw2**

**No. 91      Difficulty: ★★★★★**



**Solution 91: L2 D' U B2 R D' F L B' F2 U' D' F2 B' R2 U2 B F L R' Uw2**

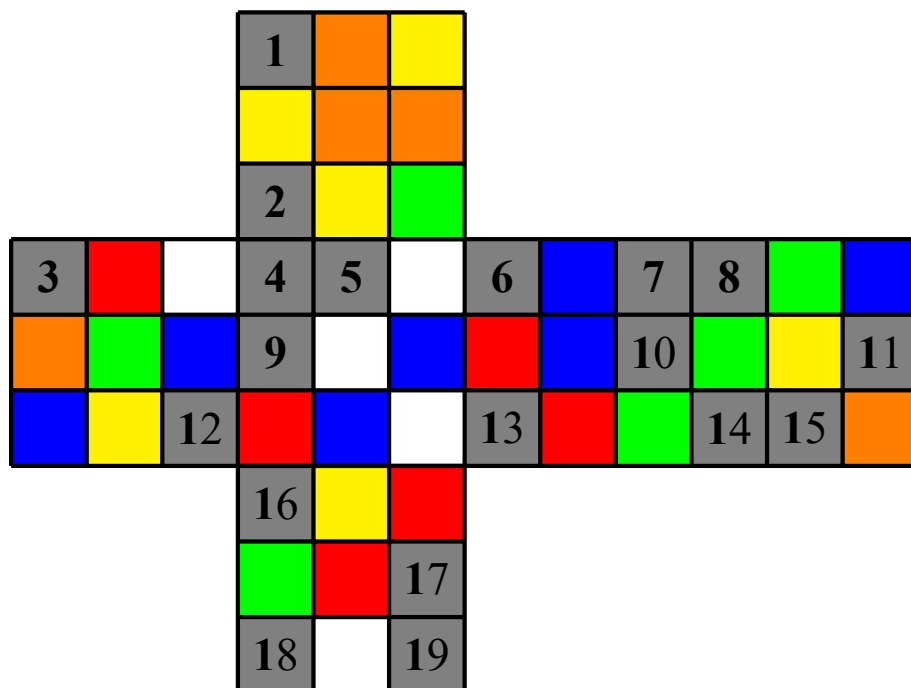
**No. 92      Difficulty: ★★★★★**



**Solution 92: F D' F U B2 D2 L' D R F B' L' F U2 B2 F R2 B2 R U' Fw' Uw**

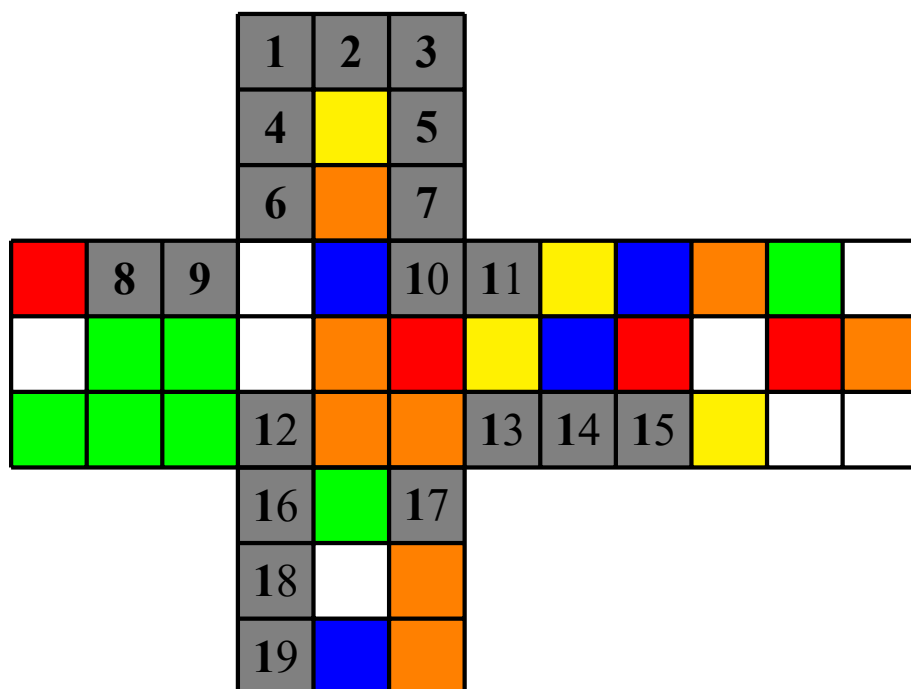


**No. 93      Difficulty: ★★★★★**



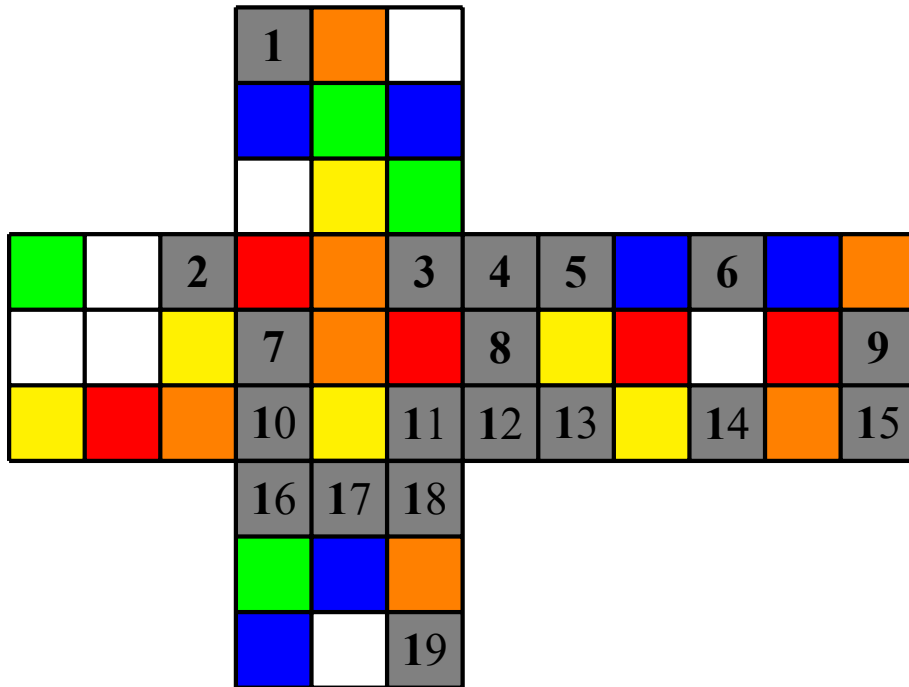
**Solution 93: F' R' U2 D2 L2 D R2 F' U2 R L U' F2 L R' F' L' R2 F D' Rw' Uw2**

**No. 94      Difficulty: ★★★★★**



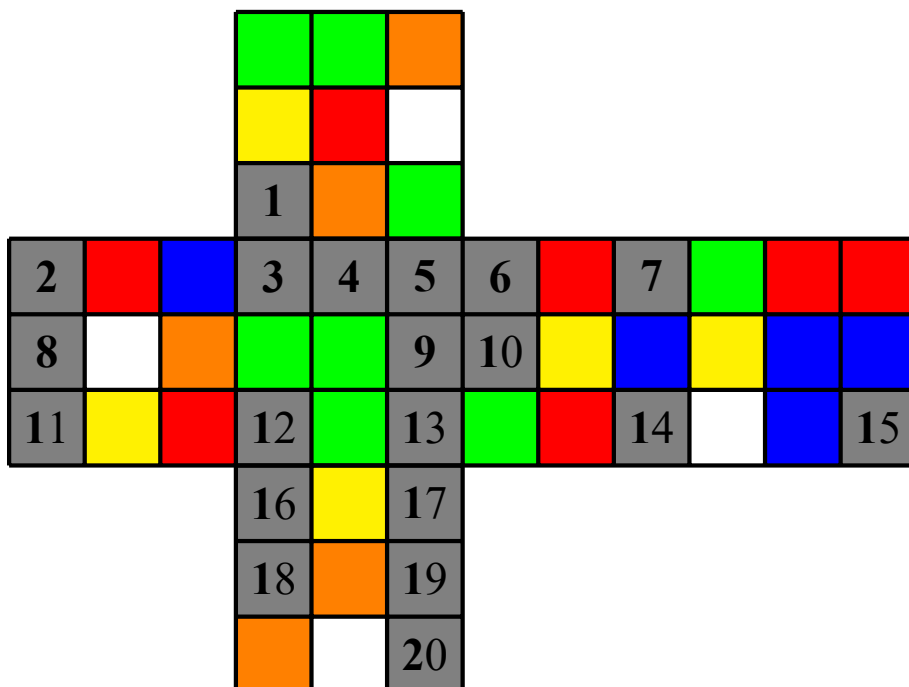
**Solution 94: B2 U' D' B2 U2 R F D2 U R' L D B F' U D R2 D' F D2 Uw2**

**No. 95**      **Difficulty: ★★★★★**



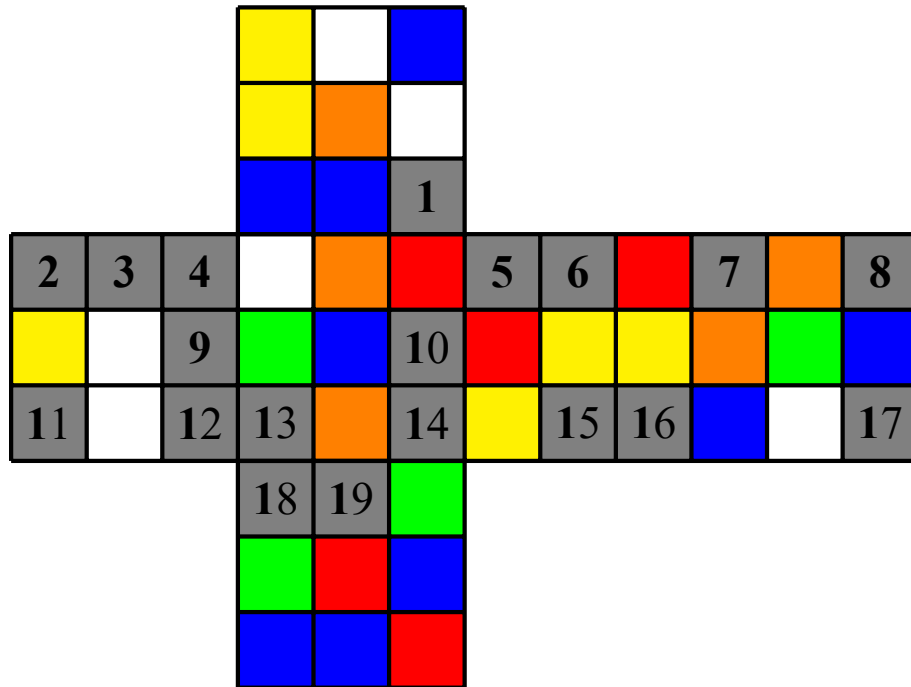
**Solution 95: B2 D' F2 D F' R' F B2 D B2 L D2 L D' F U B2 F L2 U Fw' Uw2**

**No. 96**      **Difficulty: ★★★★★**



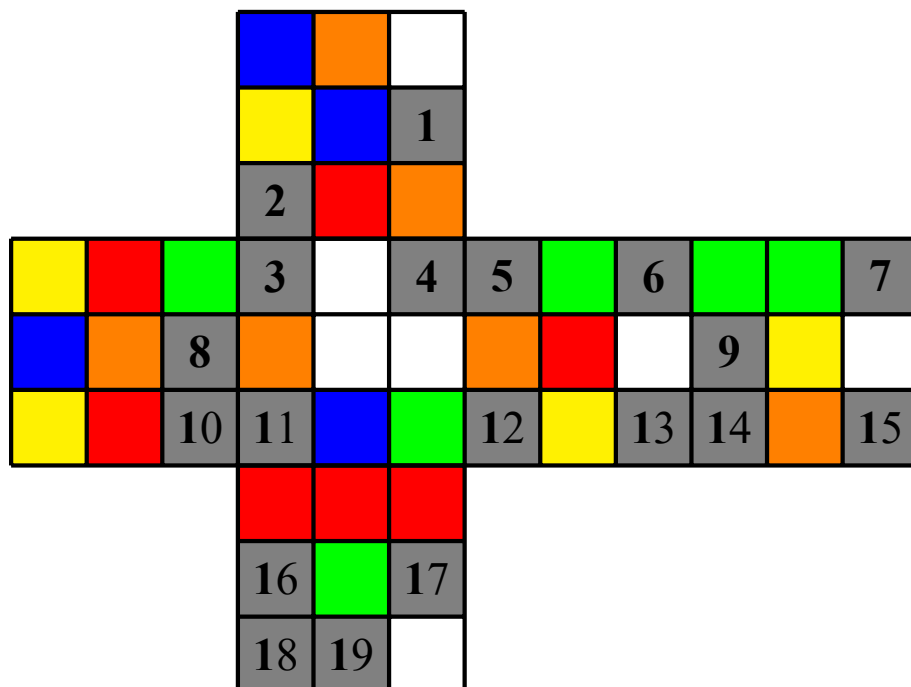
**Solution 96: U L' R D' R L' B' F' L F B' U' B' D' F' U' L' F2 R' L Rw Uw**

**No. 97**      **Difficulty: ★★★★★**



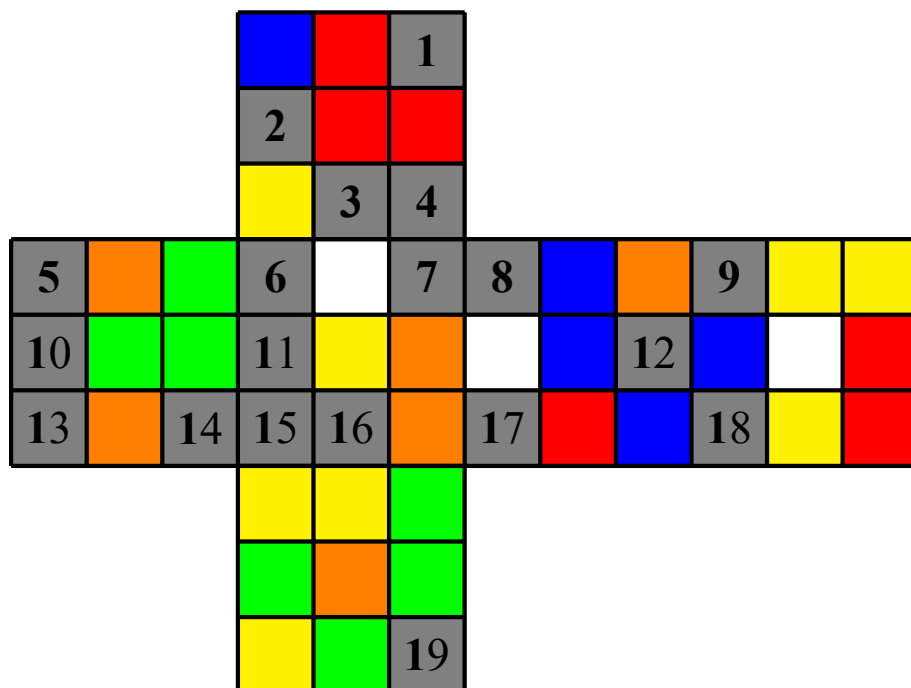
**Solution 97: B2 L B2 L U2 L R U F' D' R L2 D B' L2 U' D R2 L' D2 Rw' Uw'**

**No. 98**      **Difficulty: ★★★★★**



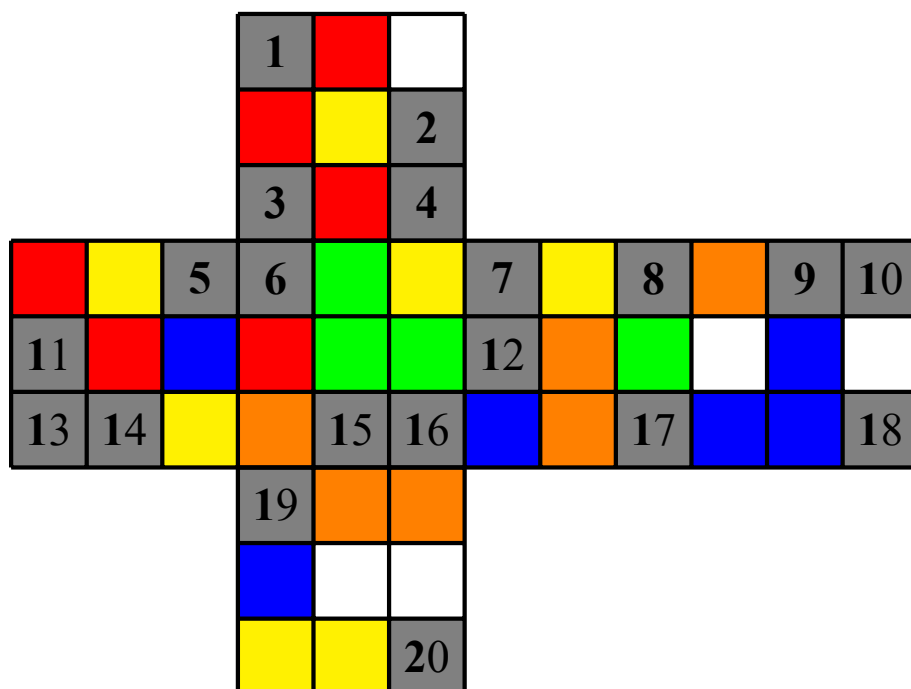
**Solution 98: L' R' B' D R2 F' B R' L2 B F2 U' D' B' U' L' D2 L2 U R Fw Uw'**

**No. 99**      **Difficulty: ★★★★★**



**Solution 99: L B2 R2 L2 B' L2 F L F' R' D R' L' F2 B' U B' U2 R2 L2 Rw Uw2**

**No. 100**      **Difficulty: ★★★★★**



**Solution 100: R2 F' U L F2 R' L' F' D U2 B D L D L B' F' L2 U2 B Uw**