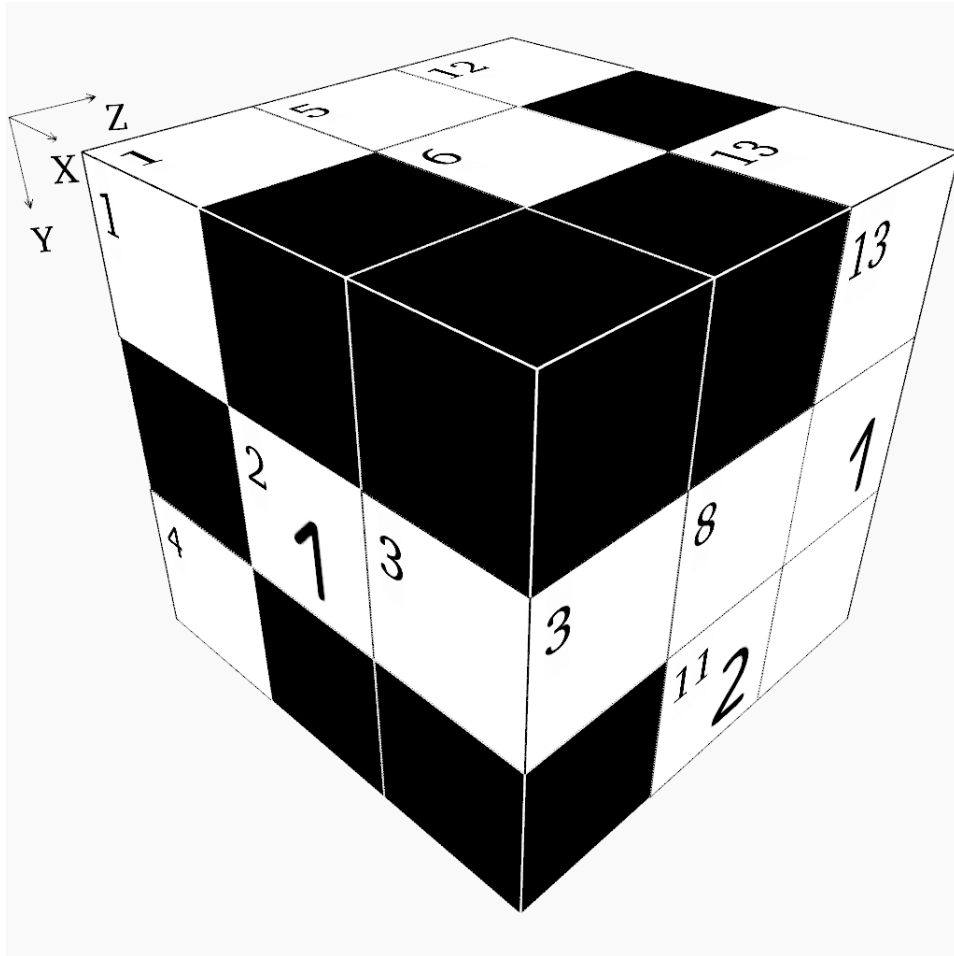


Difficulty: ☆☆☆☆☆

## Cube - Beginner Puzzle #22



This puzzle is like a crossword, but with numbers. Each digit occupies a 3D block and can be a part of a "word" in the X,Y, and Z directions.

### Rules:

1. "Words" may not start with a zero.
2. "Words" in the X direction read from left to right.
3. "Words" in the Y direction read from top to bottom.
4. "Words" in the Z direction read from front to back.
5. There is one unique solution which satisfies all the clues given below.
6. Some "words" may not have clues. They will be determined by the "words" which intersect them.

If we take the cube pictured above and divide it into individual X-Y layers, we will get these planes:

|   |   |   |   |    |    |    |    |    |
|---|---|---|---|----|----|----|----|----|
| 1 |   |   | 5 | 6  |    | 12 |    | 13 |
|   | 2 | 3 |   | 7  | 8  | 14 | 15 |    |
| 4 |   |   | 9 | 10 | 11 | 16 |    |    |

### X Direction

- 2 Two-thirds of Z11
- 5 X9 minus X2
- 7 Five times a prime number
- 9 Z10 plus X5
- 14 Same as X16
- 16 A prime number

### Y Direction

- 6 A prime number
- 8 Four times a prime number
- 12 Z1 minus Y15
- 13 X7 plus half of Y8
- 15 All digits are the same

### Z Direction

- 1 Nine times Y13
- 2 Eight times a prime number
- 3 Rearranged digits of X16
- 4 A palindrome
- 10 Two-thirds of Z11
- 11 Consecutive digits in descending order

**Solution:**

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 9 |   |   | 9 | 8 |   | 9 |   | 1 |
|   | 1 | 4 |   | 8 | 5 | 5 | 4 | 1 |
| 5 |   |   | 1 | 1 | 2 | 5 | 4 | 1 |