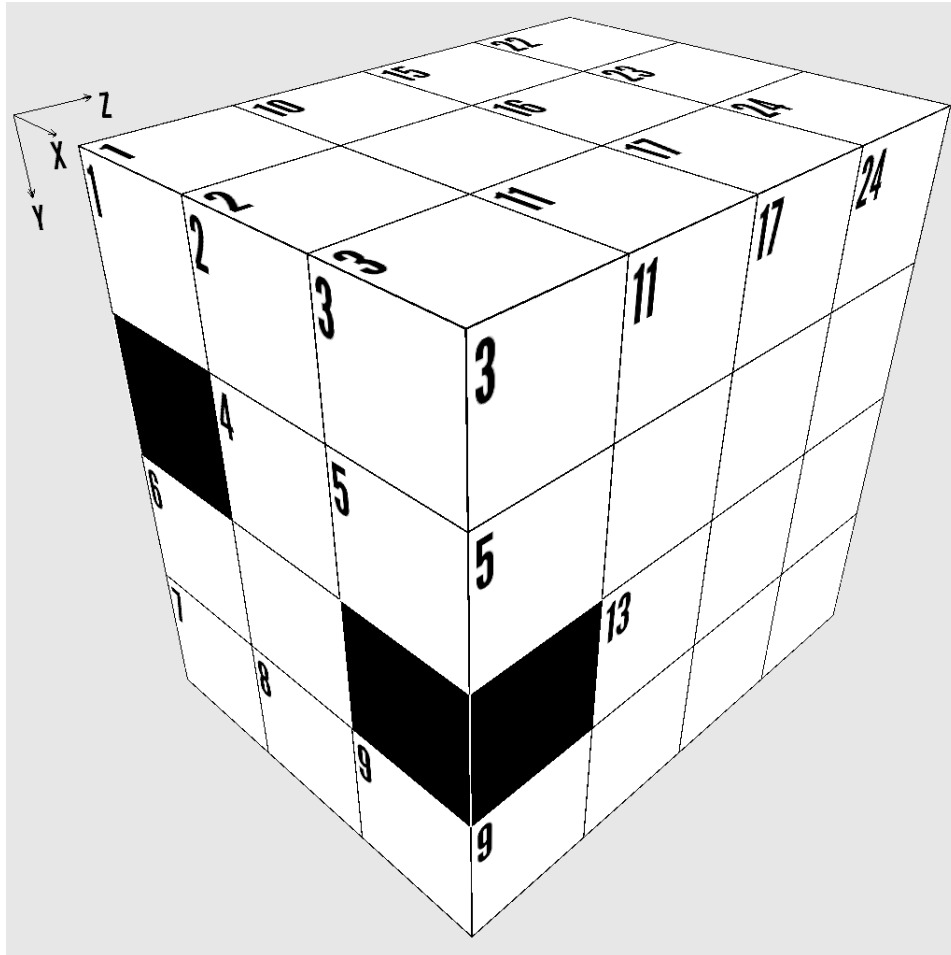


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 52



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" read from:
  - a. X Direction: Left to right
  - b. Y Direction: Top to bottom
  - c. Z Direction: Front to back
3. There is one unique solution which satisfies all the clues given below.
4. 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	2	3	10		11	15	16	17	22	23	24
	4	5	12			18	19		25		
6					13	20					
7	8	9	14			21					

**Clues:**

**X Direction**

- 1 X7 minus X25
- 4 Is a prime number
- 6 Z13 minus X4
- 7 Last two digits are the same as X4
- 10 X21 minus Y23
- 14 Forty-two times a prime number
- 15 First two digits are the same as first two digits of X18
- 18 First two digits are the same as first two digits of Z7
- 20 First two digits are the same as first two digits of X21
- 21 Twice a prime number
- 22 First two digits are the same as first two digits of Y22
- 25 Is a prime number

**Y Direction**

- 2 Last two digits are the same as last two digits of Y17
- 3 Digits are in consecutive descending order
- 6 Digits are in consecutive descending order
- 10 Last two digits are the same as last two digits of X25
- 11 Is a square
- 15 First and second digits are the same
- 16 X10 plus Y22
- 17 Is a square
- 22 First two digits are the same as Z19
- 23 Digits are the same as first two digits of X25
- 24 Is a square

**Z Direction**

- 1 Forty-nine times a prime number
- 2 Last two digits are the same as last two digits of X15
- 3 Ninety-seven times X6
- 5 Average of Y16 and Y17
- 6 Six times a prime number
- 7 Twenty-five times X1
- 8 Twice a prime number
- 9 Is a prime number
- 12 X1 minus Y23
- 13 X22 minus X18
- 19 Digits are the same as last two digits of X15

**Solution is on next page**

Solution:

3	1	8	4	8	2	7	9	4	9	4	5
■	6	7	2	■	1	7	9	3	4	4	9
8	5	■	4	■	1	5	2	5	4	■	2
7	6	7	9	6	6	5	2	6	0	■	9