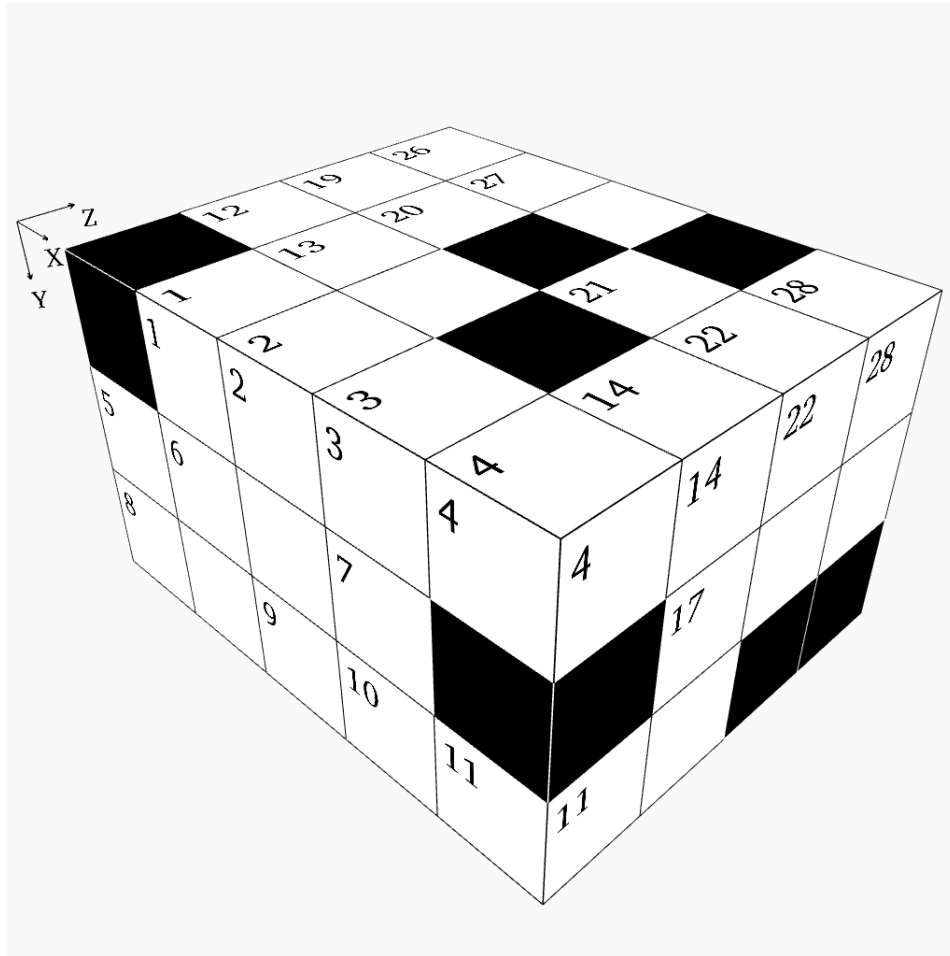


## Box - Intermediate Puzzle #42



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 box pictured above and divide it into individual X-Y layers, we will get these planes:

1	2	3	4	12	13	14	19	20	21	22
5	6	7	8	15	16	17	23	24		
8	9	10	11	18			25			26
				26	27	28				
				29		30				
				31						32

**X Direction**

- 1 Y14 plus Z12
- 5 Two hundred eighty-seven less than Z5
- 8 Two thousand three hundred seventeen more than X23
- 12 Y1 reversed
- 15 A prime number
- 16 Y22 plus X21
- 18 Y30 plus Z8
- 19 X29 divided by eight
- 21 A square
- 25 Y2 minus X15
- 26 Fifty less than Z12
- 29 Z11 plus Y20
- 30 Z17 minus Y22
- 31 X18 minus Z8

**Y Direction**

- 1 X19 plus Z17
- 2 Four times Y20
- 3 Thirteen times Y24
- 5 Y30 minus Y22
- 12 Eight times Y2
- 13 Y5 divided by eight
- 14 X15 times Y22
- 16 Y5 plus Y22
- 19 X16 minus X25
- 20 Y12 divided by thirty-two
- 21 Y13 plus Y26
- 22 X18 divided by Y19
- 24 X31 minus X21
- 26 X19 times Y28
- 27 Y26 divided by X19
- 28 Six times Z2
- 30 Same as X31

**Z Direction**

- 1 One less than X1
- 2 Mean of Y22 and X19
- 4 Sixty-two times Y1
- 5 A prime number
- 6 Z17 times Y13
- 7 A prime number
- 8 Mean of Y30 and Y28
- 9 Twenty-one times a prime number
- 10 Mean of Z7 and X26
- 11 Y5 minus Y19
- 12 Nineteen times a prime number
- 17 Z6 divided by Z2

**Solution:**

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