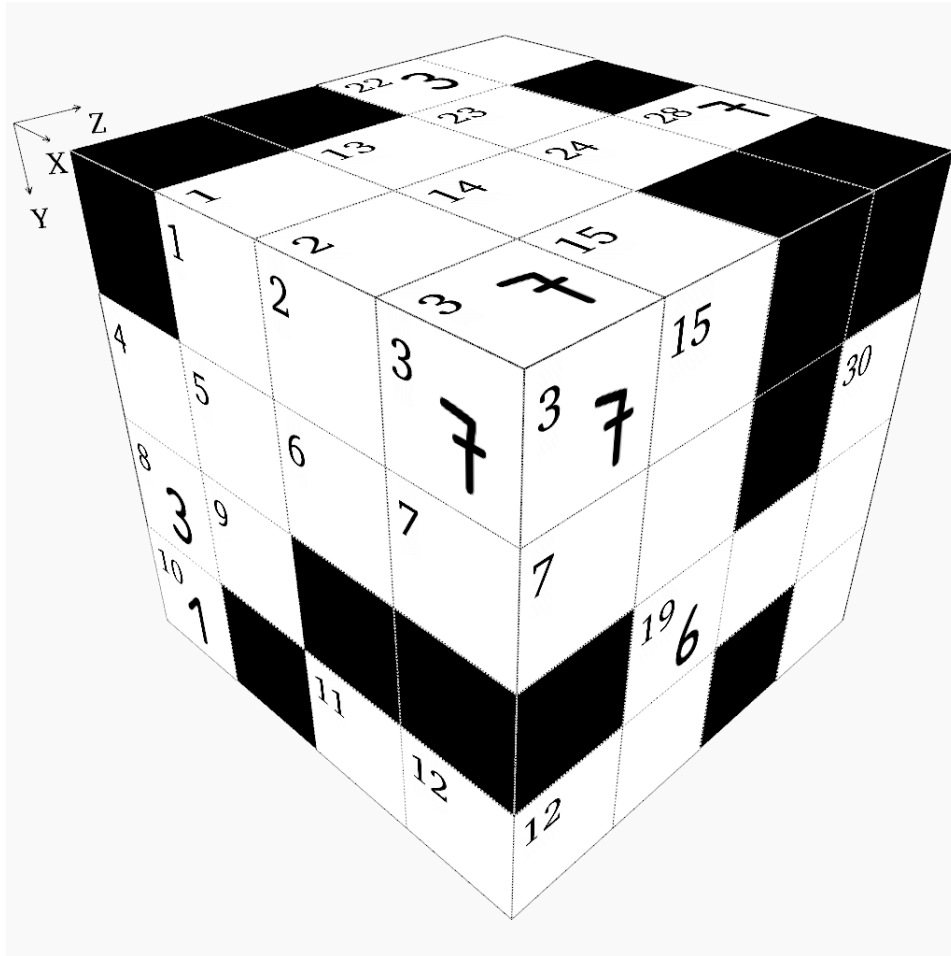


Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #30



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	2	3		13	14	15		22	23	24			28	
			7						3					7	
4	5	6	7		16				25					29	30
8	3				17		18	19			26	1		31	
10	1				20	21			27	0				32	
														5	8

X Direction

- 1 Y1 minus Z22
- 4 Two hundred sixty-three more than X16
- 8 Mean of Z7 and Z12
- 11 Y14 divided by Z12
- 13 Twice a prime number
- 16 Twenty-one times a square
- 17 Twice a prime number
- 20 A prime number
- 22 Mean of Z12 and Z19
- 25 Last two digits are the same as last two digits of Y1
- 26 Y13 divided by Y1
- 27 Twice a prime number
- 29 Mean of Z4 and Z3
- 32 A prime number

Y Direction

- 1 Twenty-two times a prime number
- 2 X11 minus Y23
- 3 Z21 minus Y4
- 4 Seventeen times a prime number
- 13 One thousand nine hundred sixty-seven more than X16
- 14 Forty-six times a prime number
- 15 Mean of X4 and X25
- 16 Z1 plus Z12
- 22 Seven times a prime number
- 23 Mean of Y2 and X8
- 24 Seventy-three times Y2
- 28 Three times Z9
- 30 A prime number
- 31 Z9 plus Z7

Z Direction

- 1 Y4 minus Y23
- 2 Mean of X16 and Z1
- 3 Z21 minus Y4
- 4 Z1 plus Z18
- 5 Z11 minus Y2
- 6 Twice a prime number
- 7 Y14 divided by forty-six
- 8 Sixty-eight times a prime number
- 9 Y23 minus X26
- 10 Mean of Z8 and Y3
- 11 Twelve times a prime number
- 12 Z21 divided by Z22
- 18 A square
- 19 Y30 plus half of X29
- 21 Thirty-five times a prime number
- 22 Y28 minus half of Z3

Solution:

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