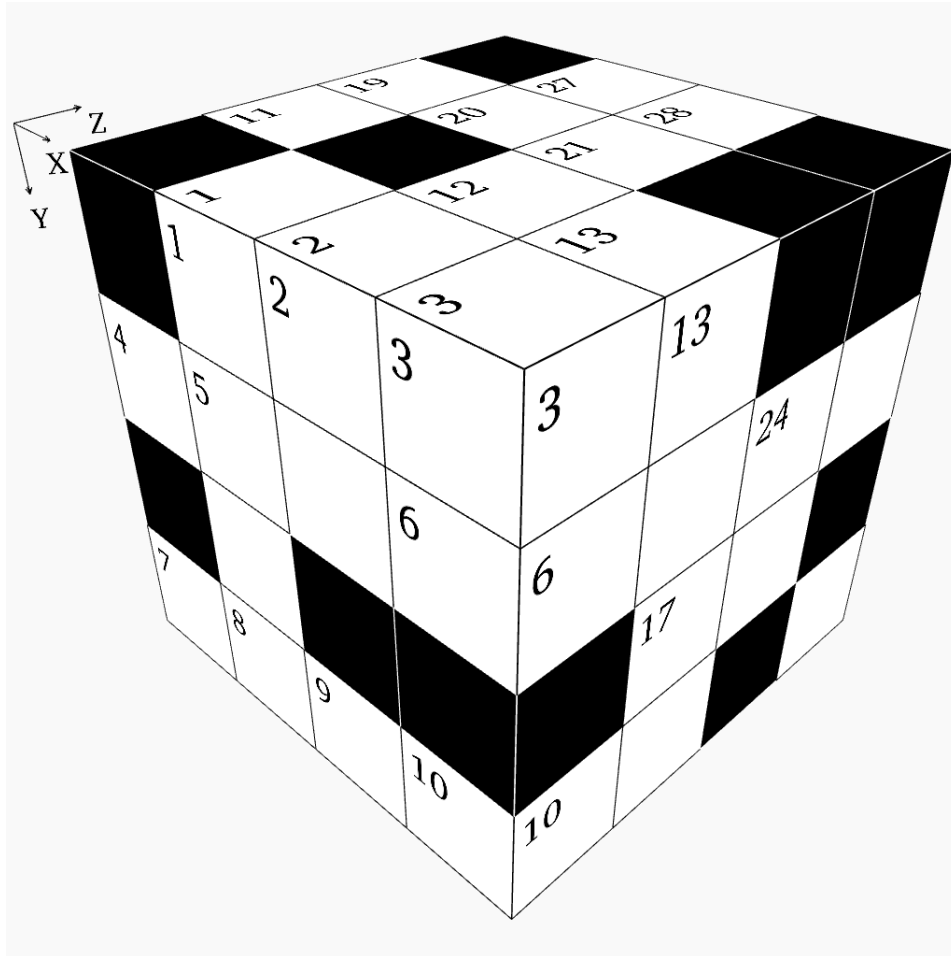


Cube - Challenging Puzzle #27



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	11	12	13	19	20	21	22	23	24	25	26	27	28	29	30	31
4	5	6	14	15	16	17	22	23	24	25	26	27	28	29	30	31	32	33
7	8	9	10	15	16	17	25	26	27	28	29	30	31	32	33	34	35	36
7	8	9	10	18	19	20	26	27	28	29	30	31	32	33	34	35	36	37

X Direction

- 1 Z11 plus X27
- 4 Twenty-six times a prime number
- 7 Mean of Y2 and Y13
- 12 Mean of Z23 and Y21
- 14 Z10 minus Y30
- 16 Z20 minus Z23
- 18 Four times a prime number
- 19 Z9 divided by ten
- 22 Twenty-three times a prime number
- 25 Z3 minus X14
- 26 Z6 minus Y1
- 27 Mean of Y3 and Y2
- 29 Mean of X26 and Z15
- 31 Z17 plus half of Y19

Y Direction

- 1 Ninety-three times X14
- 2 Half of Y3, then subtract X16
- 3 Same as Z11
- 11 Six times a prime number
- 13 Twice the result of X7 minus X14
- 16 Y2 minus Z17
- 19 X27 plus Z9
- 20 Eighteen times a prime number
- 21 X14 plus X16
- 24 Y21 minus Z17
- 27 Y3 minus Y21
- 28 A square
- 30 Z15 divided by thirty-two

Z Direction

- 2 Half of Y20, then subtract Z20
- 3 Z9 divided by thirty-two
- 4 X12 plus X19
- 5 Eight hundred forty-five more than Z7
- 6 A prime number
- 7 X7 plus X1
- 8 One thousand four hundred thirty-seven less than X22
- 9 Y19 minus Y27
- 10 Half of X18, then subtract X4
- 11 X1 minus Y27
- 15 Twice the result of X19 plus Z23
- 17 Mean of X16 and X14
- 20 X12 plus Y2
- 23 A square

Solution:

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