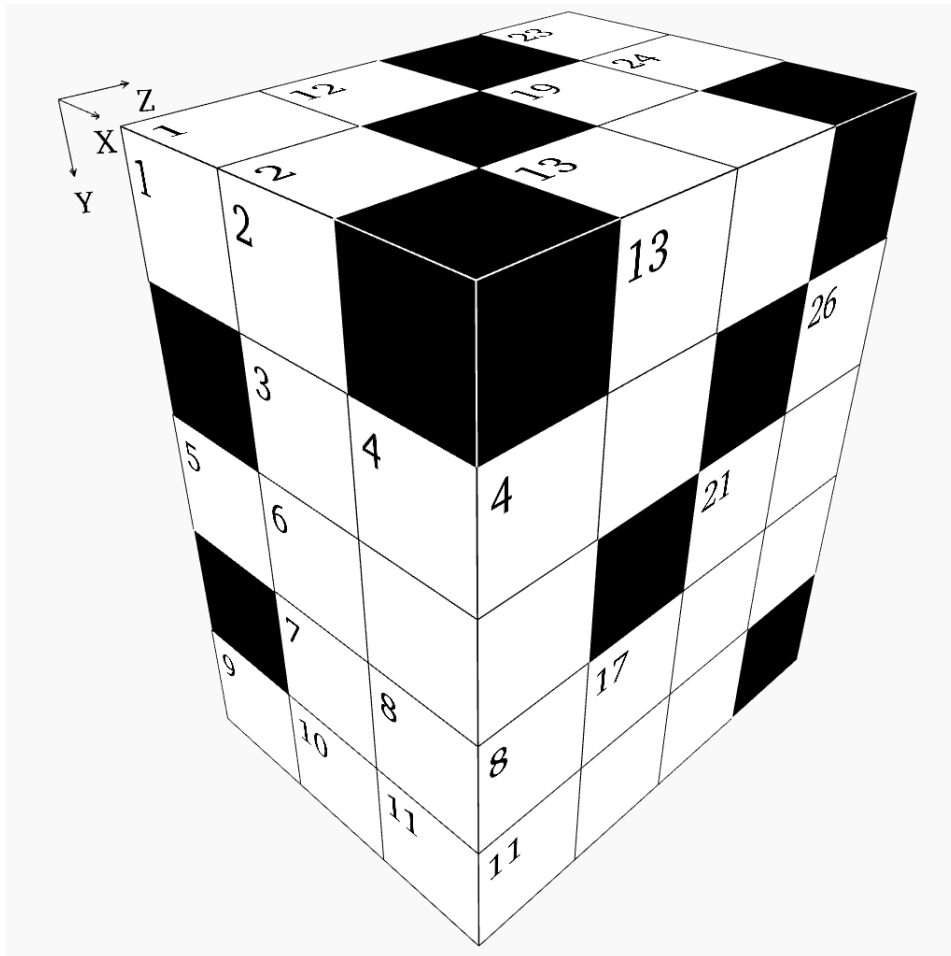


Box - Intermediate Puzzle #46



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

X Direction

- 1 Y17 plus X23
- 3 Y20 divided by X1
- 5 Seven times X27
- 7 Mean of Z19 and X19
- 9 Rearranged digits of Z11
- 14 X5 plus X1
- 16 Fifty-one times X29
- 18 Mean of Z11 and X20
- 19 A square
- 20 X1 times X3
- 22 Z16 times X3
- 23 Z10 minus Y16
- 25 Y2 divided by Z20
- 27 Half of Y21, then subtract Z13
- 28 Same as X1
- 29 Three-fifths of X19

Y Direction

- 4 Five times a prime number
- 12 Z10 plus X23
- 13 X9 divided by X29
- 15 A prime number
- 16 X25 minus Y20
- 17 X28 minus X23
- 19 Twenty-two times a prime number
- 20 Z8 minus Y19
- 21 Twenty-four times X3
- 23 A prime number
- 24 X16 times Z19
- 26 Fourteen times a square

Z Direction

- 1 Mean of Z21 and X27
- 3 Forty-four times Z21
- 4 Same as Z21
- 6 Eight hundred sixty-nine more than Z9
- 7 Twenty-seven times Y12
- 8 X20 plus Y19
- 9 Seventy-seven times a prime number
- 10 Mean of Y12 and Y16
- 11 Eighteen times a prime number
- 13 Mean of X29 and Y17
- 16 Mean of Z10 and Z20
- 19 X3 reversed
- 20 Mean of X28 and Y16
- 21 Mean of X7 and Z13

Solution:

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