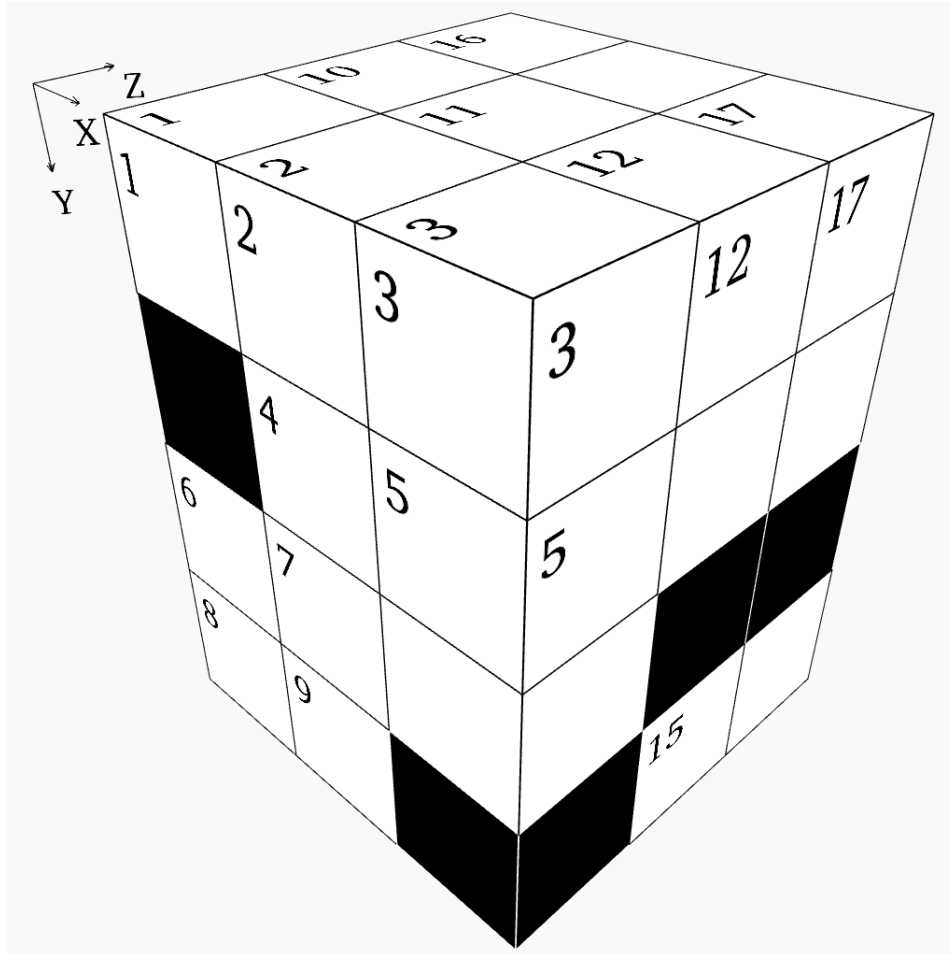


Box - Intermediate Puzzle #4



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	10	11	12	16		17
	4	5	13					
6	7					18		
8	9		14		15	19		

X Direction

- 1 Seven times a square
- 4 Twice Y12
- 6 X19 minus half of X10
- 8 Three times a prime number
- 10 Last two digits are the same as X4
- 13 Mean of Z9 and Y18
- 14 Twice the result of Z1 plus Y3
- 16 Rearranged digits of X19
- 19 Four times a prime number

Y Direction

- 2 Thirty-three times a prime number
- 3 Same as Z3
- 6 A square
- 10 A square
- 11 Twelve times a prime number
- 12 A prime number
- 17 X14 minus Z9
- 18 Five times a prime number

Z Direction

- 1 Fifteen times a prime number
- 2 A square
- 3 Same as X6
- 4 X16 minus Z5
- 5 A prime number
- 7 Mean of Y6 and X8
- 8 Forty-five times a prime number
- 9 A square
- 15 Twice a prime number

Solution:

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