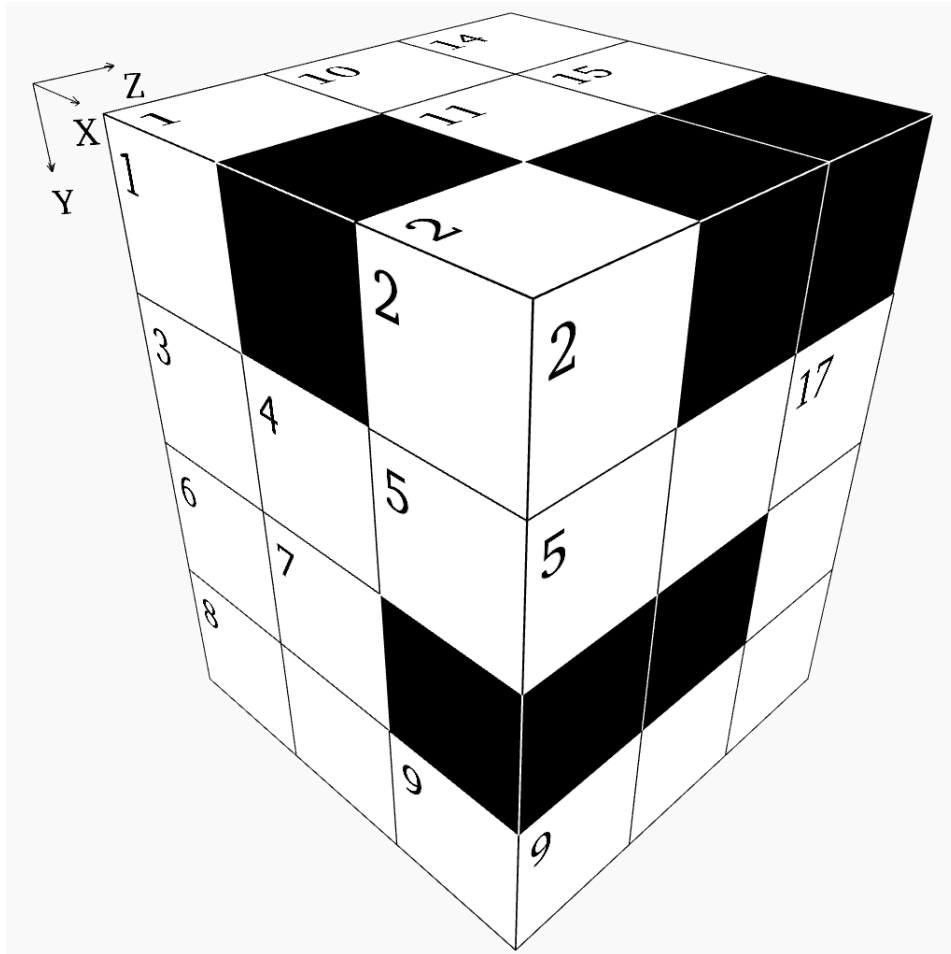


## Box - Intermediate Puzzle #10



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	10	11		14	15	
3	4	5	12			16		17
6	7		13			18		
8		9					19	

#### X Direction

- 3 Mean of Z4 and X10
- 6 X18 minus Y4
- 8 Six times X16
- 10 X19 plus Y2
- 12 A square
- 13 Twice a prime number
- 14 Y17 minus Y10
- 16 Three-fourths of Y14
- 18 Half of Z9
- 19 X18 minus X16

#### Y Direction

- 1 X3 times Y2
- 2 A cube
- 4 Half of Z9, then subtract X6
- 10 X12 plus half of Z11
- 11 Twelve less than X8
- 14 Rearranged digits of X18
- 15 Seventy-three times X19
- 17 Forty-eight times a prime number

#### Z Direction

- 1 Half of Y11, then subtract X10
- 3 A prime number
- 4 X6 plus X10
- 5 A prime number
- 6 Six times a prime number
- 7 Twice a prime number
- 9 Mean of Z5 and Y4
- 11 Twice a prime number

**Solution:**

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