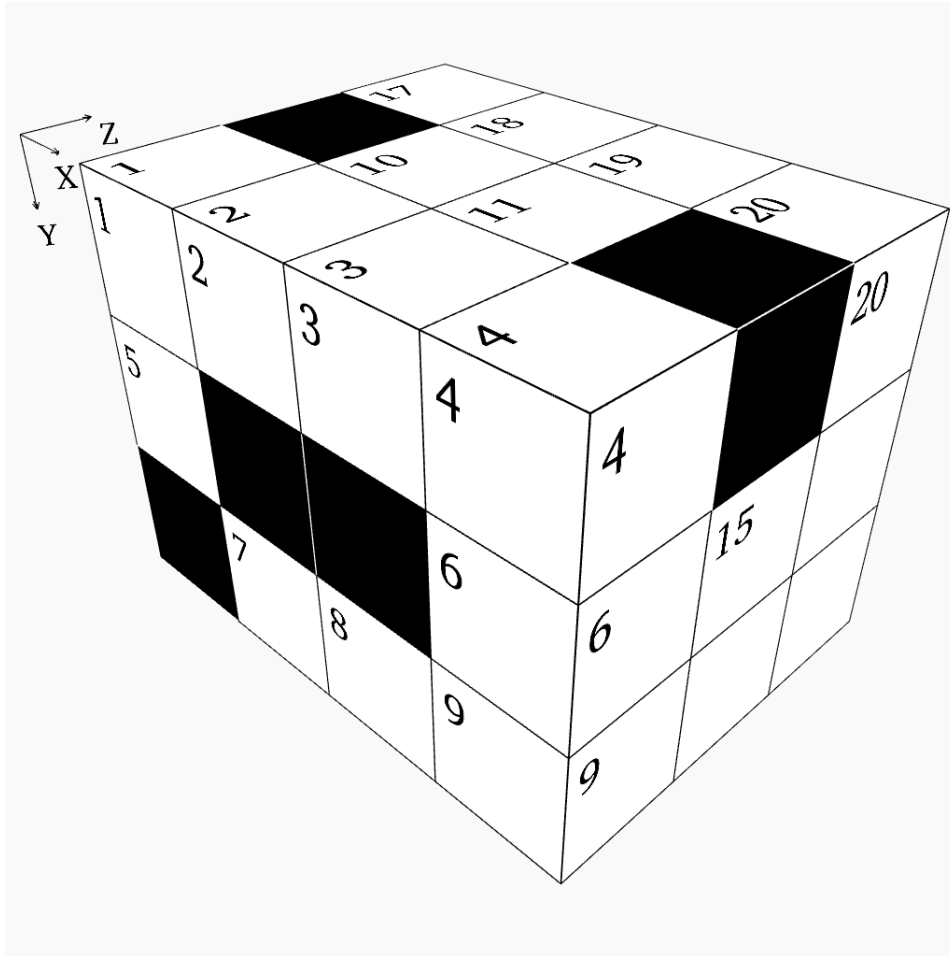


## Box - Intermediate Puzzle #53



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	4		10	11		17	18	19	20
5			6	12	13	14	15	21			
	7	8	9	16							

**X Direction**

- 1 Nine times a prime number
- 7 Twenty-two times a prime number
- 10 Z6 minus Z8
- 12 One hundred twenty-four more than X16
- 16 First two digits are the same as Z16
- 17 Twice the result of X1 minus Z2
- 21 Sixty-five times Z7

**Y Direction**

- 1 Sum of digits in Z5
- 4 Z5 plus Z7
- 10 Five times a prime number
- 11 A prime number
- 12 Z5 divided by nine
- 15 Mean of Z7 and Y12
- 17 Mean of Z3 and X10
- 18 Twice a prime number
- 19 Mean of Z7 and Y12
- 20 Fourteen times Y1

**Z Direction**

- 2 Four times a prime number
- 3 X10 plus Y15
- 5 Eleven times Z8
- 6 Z13 plus Y12
- 7 A square
- 8 A square
- 9 Twice the result of X7 plus Z7
- 13 X12 divided by Z3
- 14 Twice the result of Y17 minus Y12
- 16 Mean of Z7 and Z6

**Solution:**

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