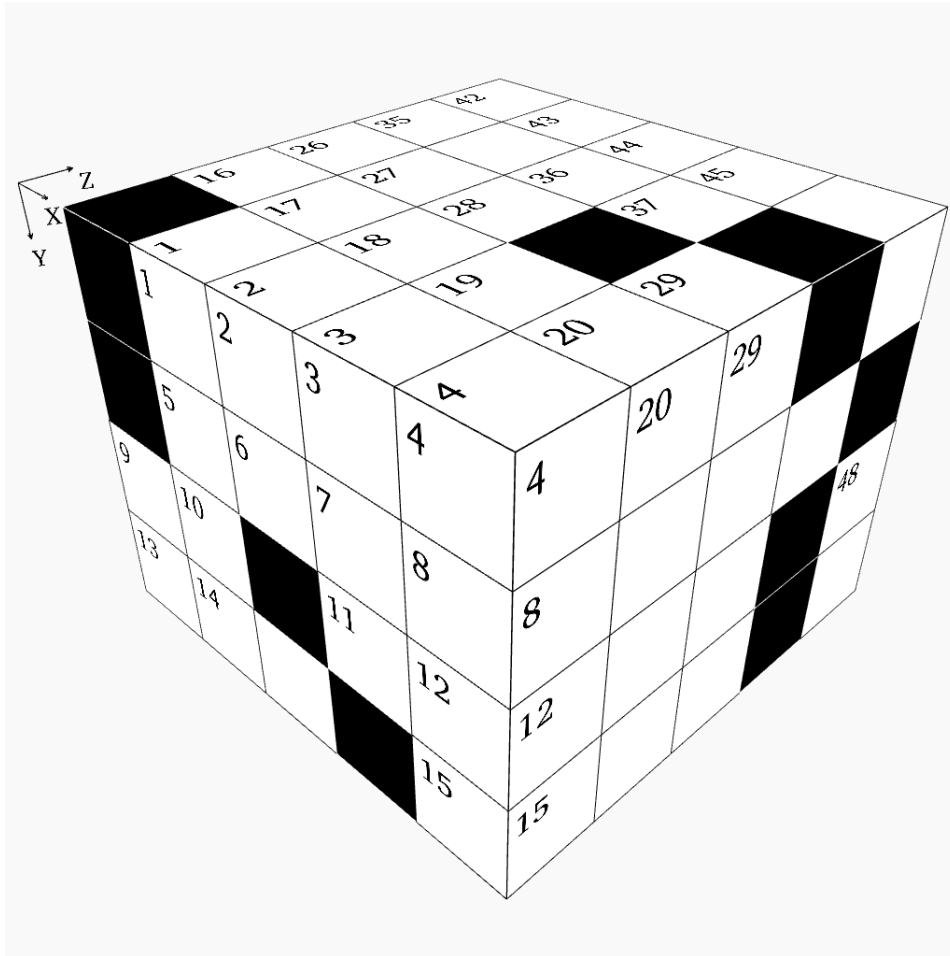


Box - Hard Puzzle #35



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

35		36	37	38	42	43	44	45	
	39		40		46				48
38	39		40	41	47				48
41				42	49				

X Direction

- 1 Rearranged digits of Y27
- 5 Three times a prime number
- 9 Mean of Y48 and X25
- 11 Z37 plus Y39
- 13 Z4 plus X25
- 16 Fifteen times a prime number
- 21 Z6 plus half of Y43
- 22 Eleven times a prime number
- 24 A square
- 25 Mean of X9 and Y9
- 26 Twice the result of Y31 minus Y48
- 30 Five times a prime number
- 32 Y42 plus Y35
- 33 Thirteen thousand five hundred seventy-nine more than Z10
- 35 Twice a prime number
- 38 Forty-seven times a prime number
- 41 Mean of Y29 and X11
- 42 Twice a prime number
- 46 Five hundred sixty less than Y36
- 47 One thousand one hundred nineteen more than X21
- 49 Twice a prime number

Y Direction

- 1 Three hundred eleven more than Y35
- 2 Three-fourths of X25
- 3 A square
- 4 Mean of Y1 and X24
- 9 Y4 minus Y43
- 16 A cube
- 17 Sixty-seven times a prime number
- 18 A prime number
- 19 A prime number
- 20 Consecutive digits unordered
- 26 Twice a prime number
- 27 X38 minus Z8
- 28 Twenty-eight times a prime number
- 29 Thirteen times a prime number
- 31 A square
- 35 Nine hundred twenty-four more than Z21
- 36 Two thousand one hundred seventy-nine more than X5
- 39 A prime number
- 40 Consecutive digits in descending order
- 42 Twice a prime number
- 43 Eighteen times a prime number
- 44 Ninety-six times a prime number
- 45 Z7 plus half of Z21
- 48 Mean of Y9 and X24

Z Direction

- 1 X47 plus Y19
- 2 Twice the result of X22 plus X1
- 3 A square
- 4 Z23 minus Y44
- 5 Y18 minus Y48
- 6 Six thousand seven hundred fifty-seven more than Z10
- 7 Rearranged digits of Z4
- 8 Fifteen times a prime number
- 9 Thirty-one times X41
- 10 Twice the result of X42 minus Z13
- 11 Eight times a prime number
- 12 Twice a prime number
- 13 Three thousand six hundred twelve less than X49
- 14 Eight times a prime number
- 15 Y39 plus X26
- 16 A prime number
- 21 Twice a prime number
- 23 Twice a prime number
- 25 Eleven times a prime number
- 34 Four-fifths of X13
- 37 Sum of digits in Z9

Solution:

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

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