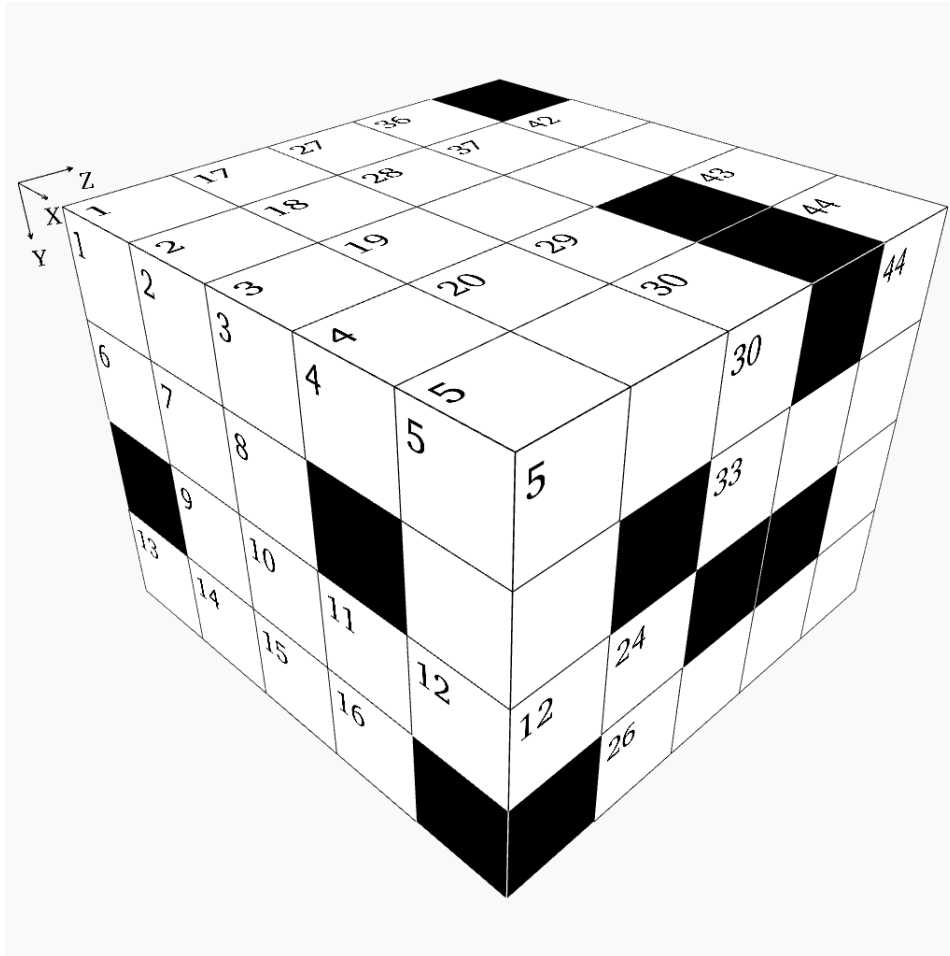


Box - Hard Puzzle # 1



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	5	17	18	19	20		27	28		29	30
6	7	8			21			22		31			32	33
	9	10	11	12	23				24			34		
13	14	15	16		25				26	35				

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

X Direction

- 1 Seventeen times a prime number
- 6 Half of Z11, then subtract Z13
- 9 Sixty-seven less than Y37
- 13 Fifty-eight times a prime number
- 17 Seven thousand three hundred fifty-eight more than X41
- 21 Seventeen times a prime number
- 23 Eighty-one times a prime number
- 25 Twelve thousand one hundred forty-nine more than X23
- 27 Z26 plus Z1
- 31 X39 divided by four
- 32 Y2 divided by Y48
- 34 Mean of Z23 and Y30
- 35 First two digits are the same as first two digits of X6
- 36 A prime number
- 38 Z23 minus half of X46
- 39 Z40 plus Y1
- 41 Fifteen thousand nine hundred six more than Z16
- 42 Two thousand sixty-eight more than Z14
- 45 Same as Y36
- 46 Z5 divided by seventeen
- 47 Sixteen thousand four hundred seventy-five more than X1
- 49 A prime number

Y Direction

- 1 Y28 plus X45
- 2 X9 minus Y43
- 3 Twice a prime number
- 5 Y39 minus X45
- 11 Z8 minus X31
- 17 Forty-eight times a prime number
- 18 Six times a prime number
- 19 Y20 minus X13
- 20 Twice a prime number
- 24 Y18 minus Z33
- 27 Three times a prime number
- 28 X39 divided by X31
- 29 Thirty-seven times a prime number
- 30 Z8 plus X45
- 34 Z14 minus Y29
- 36 Y39 minus Y5
- 37 X45 times Z5
- 39 Mean of X49 and Y27
- 42 A prime number
- 43 Ninety-four times Z9
- 44 Three times a prime number
- 45 Twice a prime number
- 48 Mean of X38 and Y30

Z Direction

- 1 Twenty-three times a prime number
- 2 Three times a prime number
- 3 X42 plus half of Y43
- 4 Y5 plus X39
- 5 Y37 divided by Y36
- 6 Mean of X47 and Y39
- 7 Seven times a prime number
- 8 Mean of Y48 and Y30
- 9 Y45 minus Z8
- 10 Z7 minus Y17
- 11 Last two digits are the same as last two digits of X41
- 12 Y24 minus X32
- 13 Seven thousand eight hundred forty-five less than Z6
- 14 Twice a prime number
- 15 A prime number
- 16 Four hundred thirty-eight more than X47
- 22 Sixteen times a prime number
- 23 Mean of X34 and X46
- 26 Eighty-one times a prime number
- 33 X38 plus Z4
- 40 A cube

Solution:

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

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