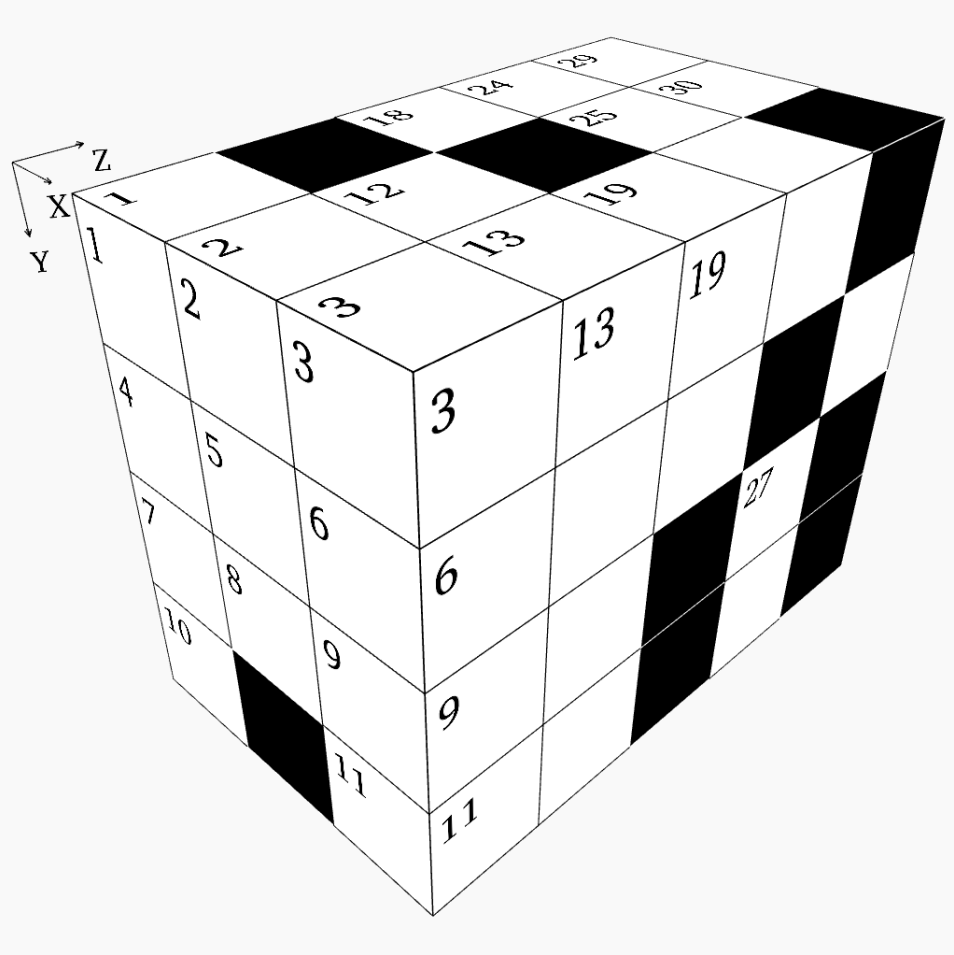
Difficulty: ★★☆☆☆

Box - Challenging Puzzle #2

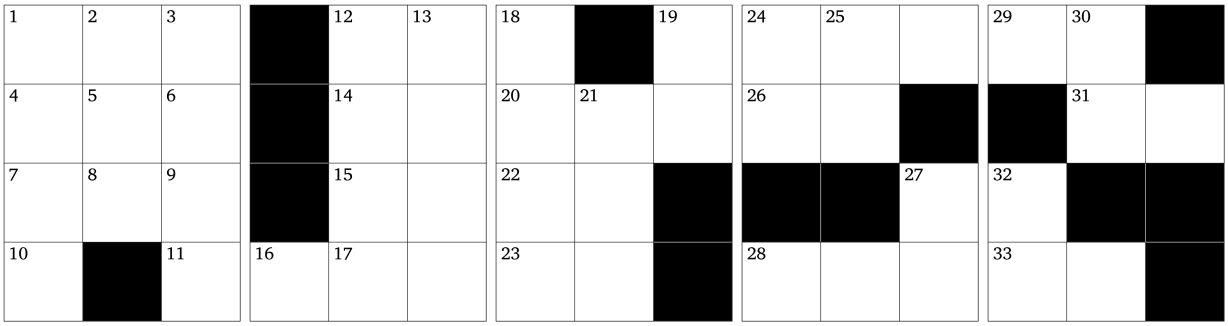


This puzzle is like a crossword, but with numbers. Each digit occupies a 3D block and can be a part of a "word" in the X,Y, and Z directions.

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:



X Direction

1 Z11 times X29
4 X28 plus X12
7 Mean of X20 and Y27
12 X14 plus X26
14 Y19 plus Z25
15 X12 minus Y19
16 Twice a prime number
20 Six times a prime number
22 X29 plus X15
23 Z6 minus Z18
24 Y1 minus Y13
26 X31 plus half of Y19
28 Forty-two times X31
29 Z2 minus X33
31 Y24 divided by four
33 X26 plus X15

Y Direction

1 Rearranged digits of Y3
2 Four times a prime number
3 Z11 times Y27
12 Fourteen times X20
13 Eight times a prime number
18 Z17 minus X22
19 Z6 divided by eleven
21 Nine times X31
24 Mean of Y32 and X33
25 Mean of X29 and Z20
27 Z9 minus half of X33
30 X23 minus Y27
32 Two-thirds of X26

Z Direction

2 Z25 plus Z11
3 Fifty-eight times a prime number
5 Its digits total Y32
6 Z8 plus X23
8 Half of X16, then subtract Z20
9 Z11 plus X31
10 Ninety-eight times a prime number
11 X12 minus Y30
17 Twice a prime number
18 Same as Z8
20 Mean of X12 and Y25
25 Mean of X26 and Y25

Solution: