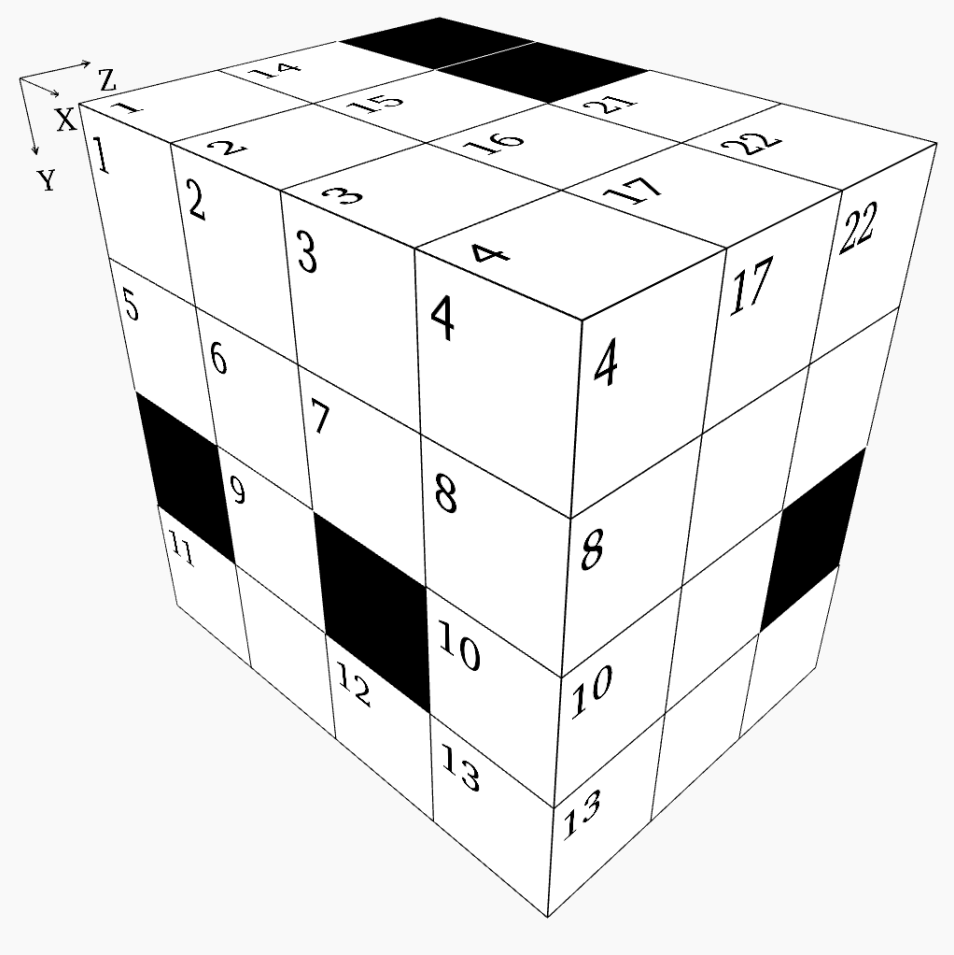
Difficulty: ★☆☆☆☆

Box - Intermediate Puzzle #27

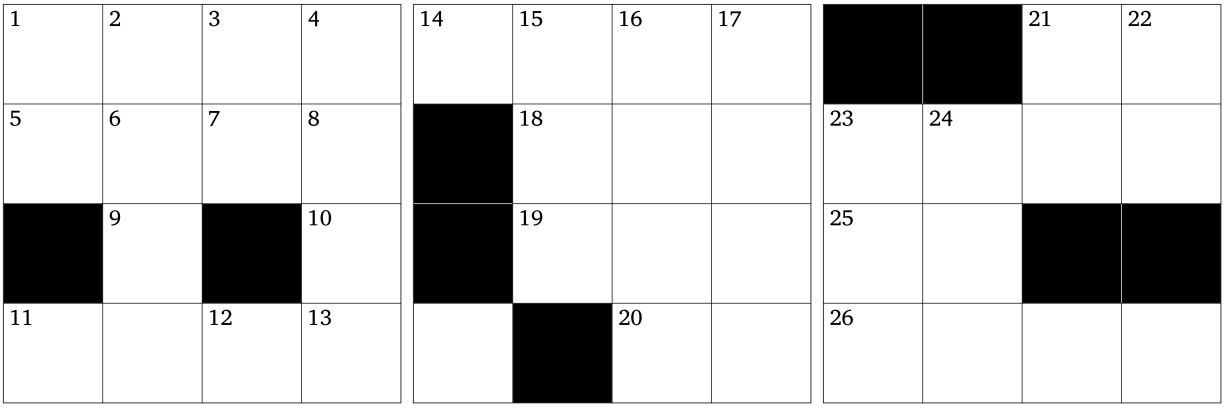


This puzzle is like a crossword, but with numbers. Each digit occupies a 3D block and can be a part of a "word" in the X,Y, and Z directions.

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 Mean of X26 and X19
5 X23 minus Z2
11 Twenty-four times a prime number
14 Three times a prime number
18 Twice the result of Y24 plus X25
19 A prime number
20 X18 divided by seven
21 Z9 minus half of X20
23 Twenty-eight times a prime number
25 Y17 divided by eighteen
26 Three times a prime number

Y Direction

1 Y21 minus Z1
2 Twice a prime number
3 Same as X21
4 Six times a prime number
15 Sixteen times a prime number
16 X25 times Z2
17 A square
21 Digits are the same as first two digits of Z3
22 Mean of Y1 and Z9
23 Z4 minus Y1
24 Mean of Z1 and X19

Z Direction

1 A square
2 X20 minus X25
3 Z11 plus X25
4 Half of Z8, then subtract Y22
6 Y17 divided by eight
7 Seventy-nine more than Z8
8 Six times a prime number
9 X19 minus Z13
10 Y16 minus Z3
11 Seven times a square
12 A prime number
13 Y2 minus Z11

Solution: