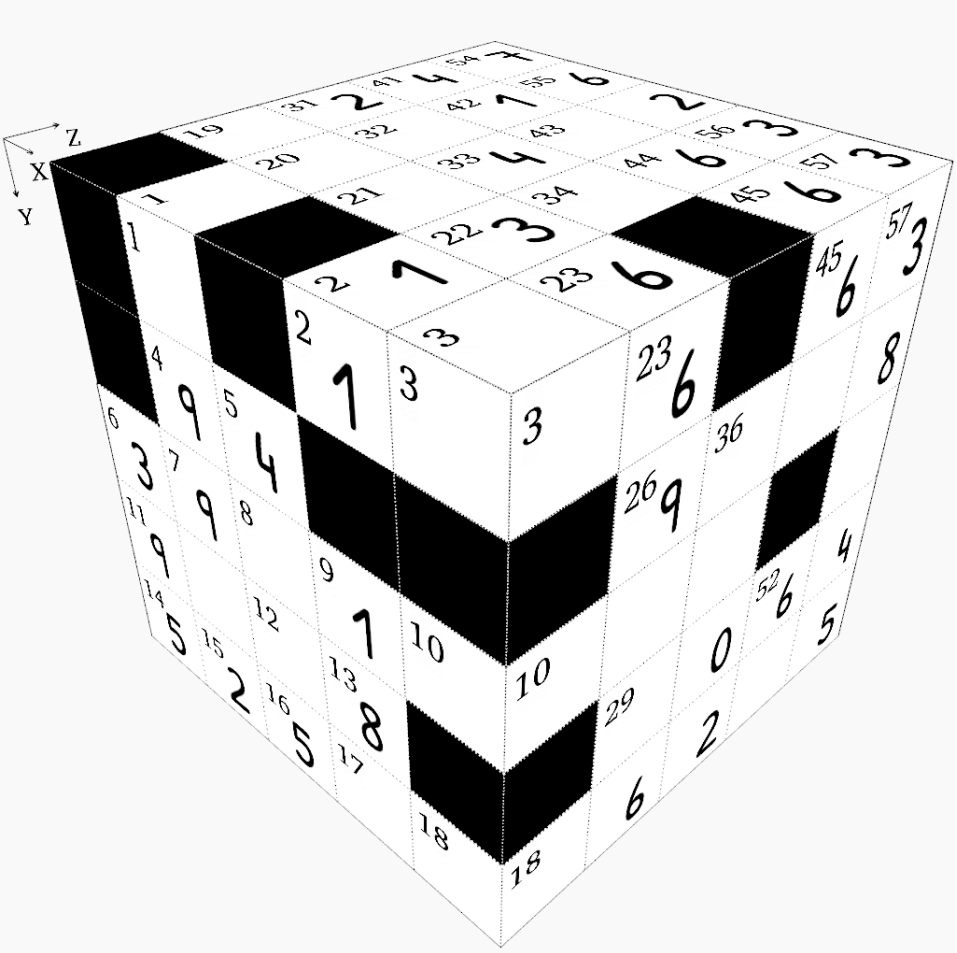
Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #16

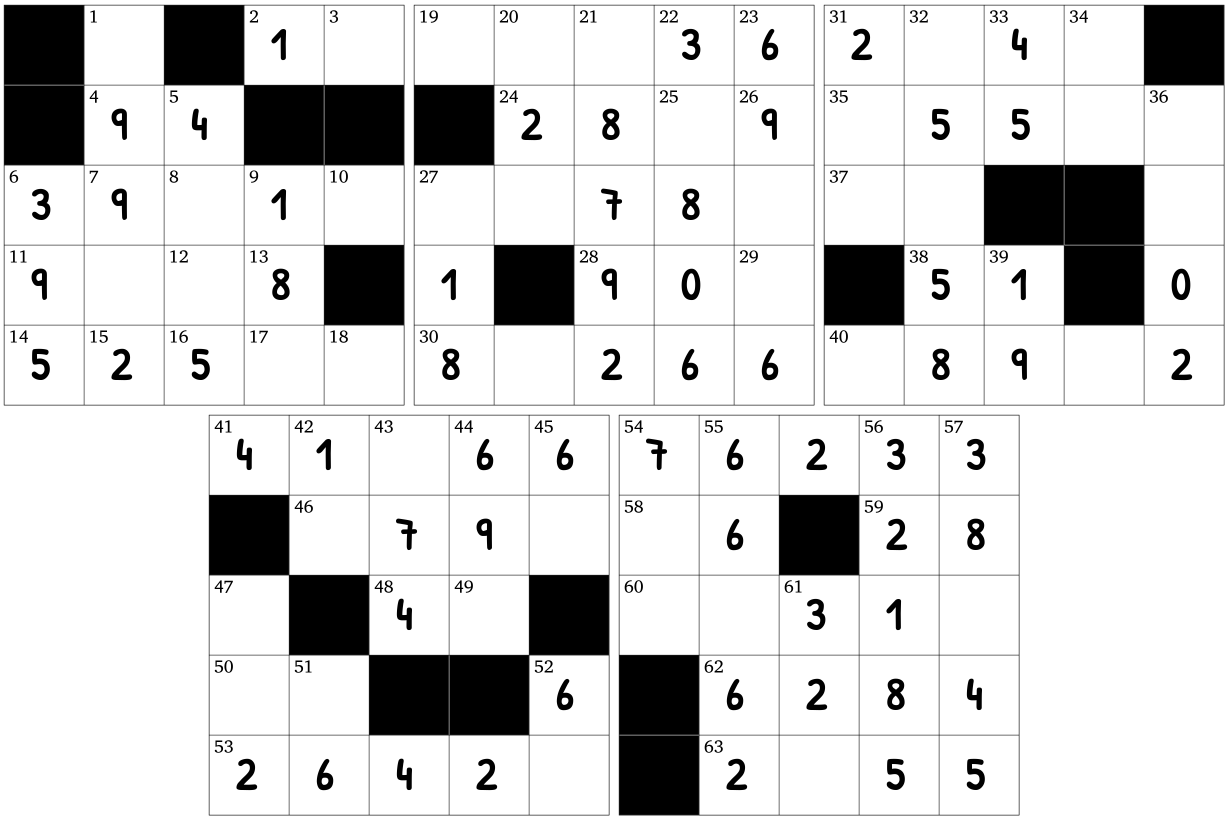


This puzzle is like a crossword, but with numbers. Each digit occupies a 3D block and can be a part of a "word" in the X,Y, and Z directions.

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 cube pictured above and divide it into individual X-Y layers, we will get these planes:



X Direction

2 X50 minus Z8
4 Z3 plus X37
6 Y22 minus half of Z10
11 Ninety-seven times X4
14 Three thousand five hundred ninety-two more than X40
19 First three digits are the same as first three digits of X46
24 Thirteen times a prime number
27 Three times a prime number
28 Z7 minus Y52
30 Twice a prime number
31 A prime number
35 A prime number
37 Mean of Z13 and Y51
38 X50 minus half of Z13
40 Twice the result of Z6 minus Y36
41 Eighteen times a prime number
46 Nine hundred forty more than Z5
48 Y34 plus Y51
50 Y33 plus X48
53 Seventy-two times a prime number
54 Three times a prime number
58 Y33 minus Y39
59 X48 minus Z9
60 Mean of Y55 and Z29
62 Four times a prime number
63 Ninety-five times a prime number

Y Direction

1 Eight times a prime number
5 Mean of Z21 and Z9
6 Mean of Y45 and Y54
9 Z21 divided by fifty-two
20 Y34 plus Y44
21 Last two digits are the same as last two digits of Z25
22 Six thousand three hundred forty-three more than Z6
23 Eighty-two times a prime number
27 Y6 minus Z8
31 Thirteen times Z9
32 A palindrome
33 X50 minus Z3
34 Half of Y44, then subtract Y27
36 Fourteen times a prime number
39 Y52 minus Y33
42 Z48 minus X59
43 X4 plus Z13
44 Four times Y43
45 X38 plus Y51
47 Four times a prime number
51 A square
52 A square
54 X28 minus Y9
55 Forty-six times a prime number
56 Seven thousand five hundred twenty-six less than X6
57 Five times a prime number
61 Y54 reversed

Z Direction

1 Z15 minus Z3
2 Last two digits are the same as Z45
3 Same as X48
4 Twice the result of Y21 minus X14
5 Three times a prime number
6 Seven thousand thirty-nine more than X53
7 Twice a square
8 X58 plus X38
9 X37 minus Y34
10 Ten times Y39
11 Z3 plus Y33
12 Mean of Y52 and Y27
13 Y39 plus Z49
14 Y33 plus X46
15 Z1 plus X48
16 X19 minus half of Z26
17 Two thousand eight hundred sixty-two more than Z2
18 Fifteen times a prime number
19 Mean of Z38 and Z26
21 Fifty-two times a prime number
25 X11 minus X58
26 Six times a prime number
29 Thirty-two times a prime number
38 Mean of Y52 and Z7
45 Y33 plus Z9
48 Z49 minus Z9
49 Y42 plus X48

Solution: