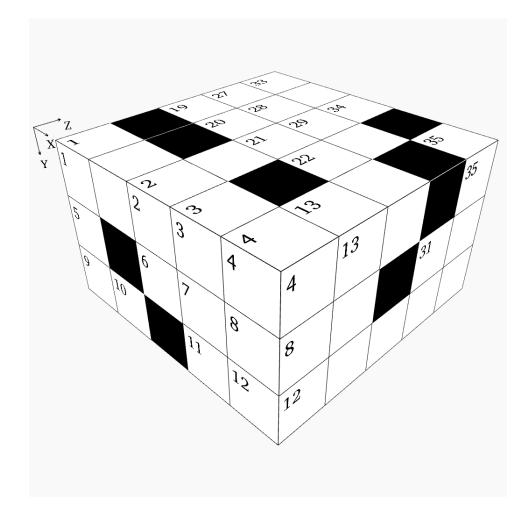


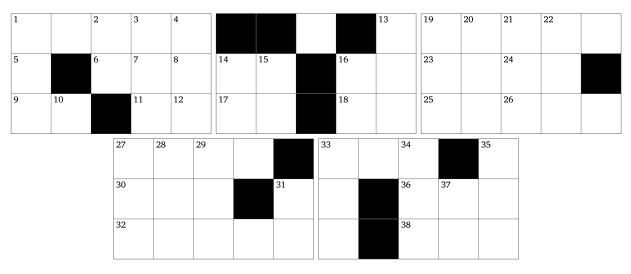
Box - Hard Puzzle #46



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.



X Direction

- **1** Z9 plus Y20
- **6** A prime number
- **9** A square
- 11 Y19 divided by forty-one
- 14 A square
- 16 X27 divided by Y16
- 17 Z7 minus Y16
- 18 Z19 minus X36
- 19 A prime number
- **23** Last two digits are the same as last two digits of Y27
- **25** Rearranged digits of Z2
- 27 A square
- **30** Rearranged digits of Z24
- **32** Eighteen times a prime number
- **33** Mean of Z24 and X9
- **36** Twice the result of Y35 minus X18
- **38** Twice the result of Y3 plus Y31

31 X9 minus Y2 **33** Y22 minus Y35 **34** Y31 times Y16

27 A prime number

28 X36 minus Z20

Y Direction

14 A square

1 X11 times Y2

2 X9 minus Z31

3 Three times a prime number

4 Mean of Z26 and Y29

16 Y34 divided by Z31

20 Mean of Y35 and X18

22 Mean of X6 and Y21

29 Six times a prime number

13 Eleven times X18

15 Z7 minus Y16

19 Y21 minus Y35

21 X11 plus X38

- **35** Mean of X18 and Z19
- **37** Twice a prime number

Z Direction

- 2 X19 plus Y13
- **4** First two digits are the same as X16
- **5** Fifty times a prime number
- **7** A prime number
- 8 Sum of digits in Z5
- **9** Eighty-seven times a prime number
- **10** A prime number
- **11** Mean of X25 and Y15
- **12** Sixty-six times a prime number
- **15** Twice the result of Y28 plus Y33
- **19** Z8 plus X30
- **20** Y29 minus Y33
- 22 Mean of Z31 and X18
- 24 Y20 plus Y35
- 26 Twice the result of X30 minus Y14
- **31** Y34 divided by X16

Solution:

| 6 | 9 | 5 | 4 | 1 | ł | | | 3 | | q | | 5 | 2 | 8 | 5 | 9 |
|---|---|---|---|---|---|---|-----|---|---|---|---|---|-----|---|---|---|
| Ŧ | | 2 | 1 | 1 | | 4 | 9 | | F | ł | | 3 | 0 | 5 | 3 | |
| 6 | 4 | | 1 | 3 | 3 | ٩ | 4 | | ٩ | (|) | 3 | 8 | ٩ | 5 | 4 |
| | | | 6 | 2 | 4 | 1 | | | 2 | 9 | 9 | | 3 | ; | | |
| | | | 5 | 4 | 3 | | 1 | | 0 | | 4 | ٦ | - 2 | 2 | | |
| | | | 3 | 3 | 8 | 2 | . 2 | 2 | ٩ | | 8 | 4 | 6 | , | | |