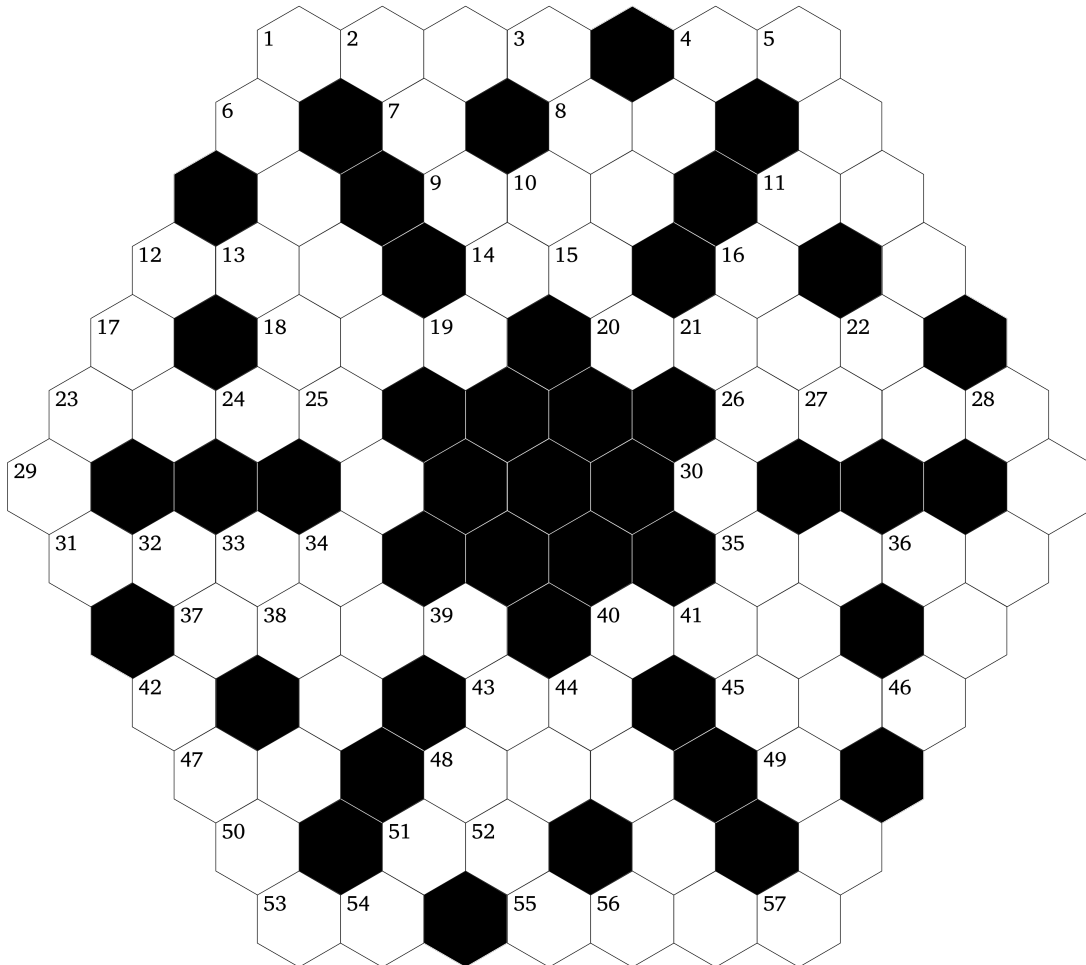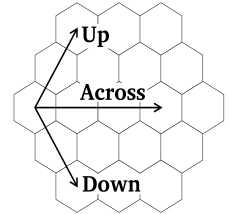# TripleCross - Hard Puzzle #24

This puzzle is like a crossword, but with numbers. Each digit occupies a hexagonal cell and can be a part of a "word" in the across, up, and down directions.

Rules:

1. "Words" may not start with a zero.
2. "Words" in the 'across' direction read from left to right.
3. "Words" in the 'up' direction read along the upward diagonal to the right.
4. "Words" in the 'down' direction read along the downward diagonal to the right.
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.

Across

1 39 down plus half of 13 down
4 48 down minus 39 down
8 56 up minus 22 down
9 42 up plus 24 up
11 34 down minus 41 up
12 14 across times 53 across
14 8 across plus 47 across
18 Twice the result of 30 up minus 3 down
20 Thirty-two times 45 across
23 A prime number
26 Eight times 9 across
31 Seven times a prime number
35 Four times a prime number
37 Twenty-two times a prime number
40 10 down minus 51 across
43 18 across minus 47 across
45 38 up minus 17 down
47 6 up minus 51 across
48 33 down minus 4 across
51 53 across plus 32 down
53 Same as 28 down
55 47 across times 48 across

Up

6 11 across reversed
7 8 across plus 57 up
13 41 up plus 21 down
15 Thirty-four times a prime number
19 30 down minus 22 down
21 Mean of 19 up and 32 down
24 Four times a prime number
25 32 down plus 47 across
27 Twice a prime number
29 Twice a prime number
30 12 across minus 28 down
38 25 up plus 45 up
41 Half of 18 across
42 33 down minus 6 up
45 Twice a prime number
46 Last two digits are the same as last two digits of 35 across
49 21 down plus 7 up
50 Mean of 29 up and 13 up
52 9 across plus half of 34 down
54 Twenty-three times a prime number
56 A prime number
57 Same as 14 across

Down

2 Its digits total 4 across
3 24 up minus 56 up
5 48 across times 47 across
6 41 down minus 45 across
10 36 down plus 40 across
13 Twelve times a prime number
16 Mean of 45 across and 57 up
17 Mean of 14 across and 56 up
21 41 up minus 8 across
22 A square
28 Twice the result of 41 up minus 36 down
29 20 across minus 37 across
30 Twice the result of 35 across minus 17 down
32 29 down minus 14 across
33 45 across plus 34 down
34 22 down plus 32 down
36 53 across plus 32 down
39 33 down minus 21 down
41 Mean of 31 across and 54 up
42 Mean of 55 across and 38 up
44 Twenty-five times a prime number
48 A prime number

Solution: