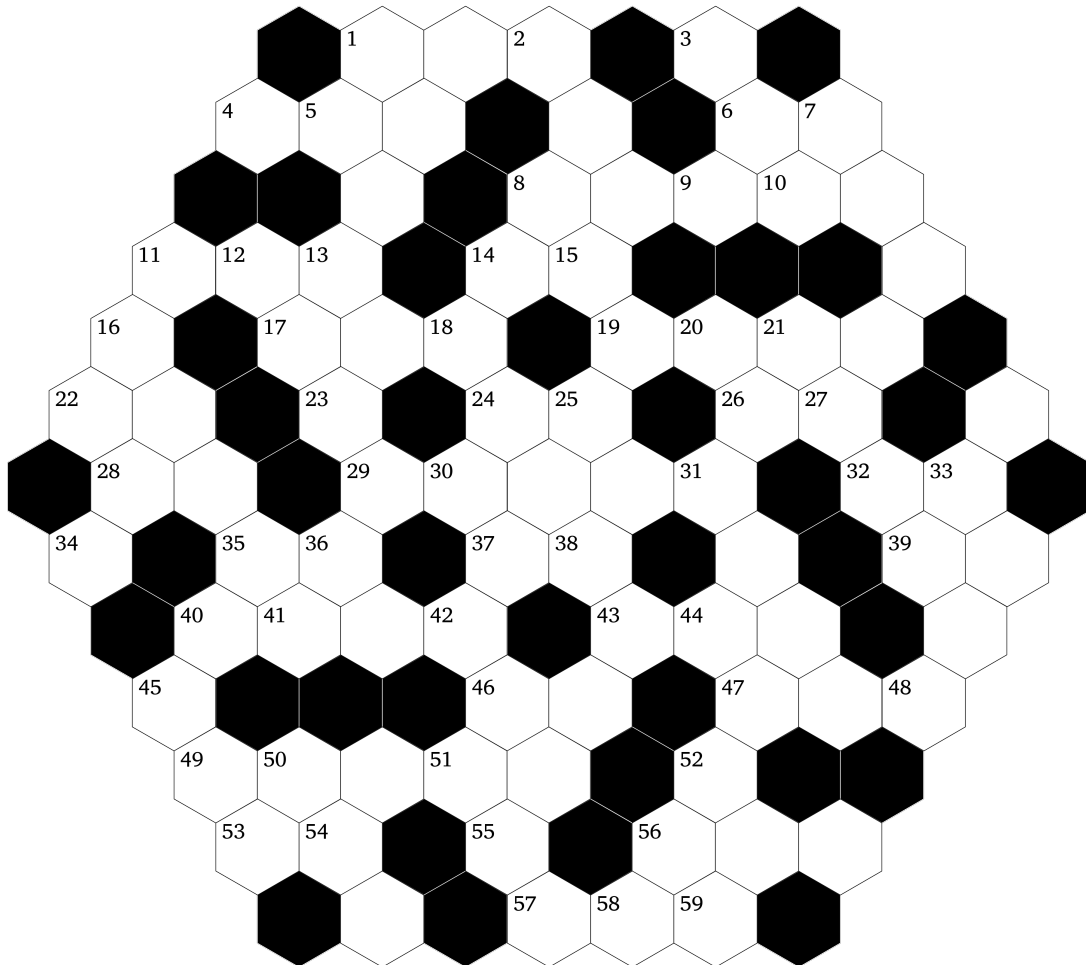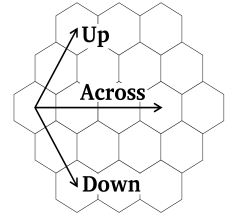# TripleCross - Hard Puzzle #3

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 42 up divided by 13 down
4 Mean of 7 down and 44 down
6 53 across minus 28 across
8 37 across times 55 up
11 52 down times 28 across
14 A square
17 47 across plus 20 down
19 Twice a prime number
22 7 down divided by 52 down
24 53 across plus 32 across
26 8 down divided by twenty-six
28 36 down minus 20 down
29 Seven times a prime number
32 27 up minus 11 across
35 9 up minus 51 up
37 A square
39 14 across plus 52 down
40 Its digits total 51 up
43 56 across minus 35 across
46 Mean of 6 across and 1 down
47 22 down plus 41 up
49 Two thousand four hundred fifty-eight less than 18 down
53 Mean of 22 down and 31 up
56 2 down plus 3 down
57 4 across minus 26 across

Up

5 30 up minus 22 down
9 56 down minus 22 down
10 Twice the result of 31 up minus 30 up
15 45 down minus 30 down
17 Thirty-one times a prime number
18 A prime number
22 41 up minus 51 down
23 Same as 13 down
27 31 down minus 48 up
30 51 down minus 20 down
31 53 up plus 46 across
34 Mean of 3 down and 32 across
38 52 down plus 39 across
39 Twice the result of 34 up minus 39 across
41 Mean of 11 across and 59 up
42 1 across times 23 up
44 22 across plus 39 across
45 A cube
48 42 down minus 51 down
51 38 up divided by four
53 Mean of 5 down and 5 up
54 Mean of 59 up and 9 up
55 8 across divided by 14 across
58 Two thousand five hundred nine less than 42 up
59 52 down plus 25 down

Down

1 A square
2 33 down plus 39 up
3 7 down minus 39 across
5 44 up plus 32 across
7 A square
8 43 across plus 30 up
12 Three times a prime number
13 Mean of 54 up and 20 down
16 12 down plus half of 18 down
18 Consecutive digits unordered
20 31 up minus 13 down
21 Last two digits are the same as 39 across
22 54 up minus 25 down
25 Mean of 22 down and 53 across
30 51 up plus 5 up
31 Consecutive digits unordered
33 39 across plus 25 down
36 5 down plus 32 across
42 Nine times 25 down
44 A square
45 Mean of 57 across and 53 up
50 A prime number
51 15 up plus 36 down
52 33 down minus 15 up
56 44 up plus 26 across

Solution: