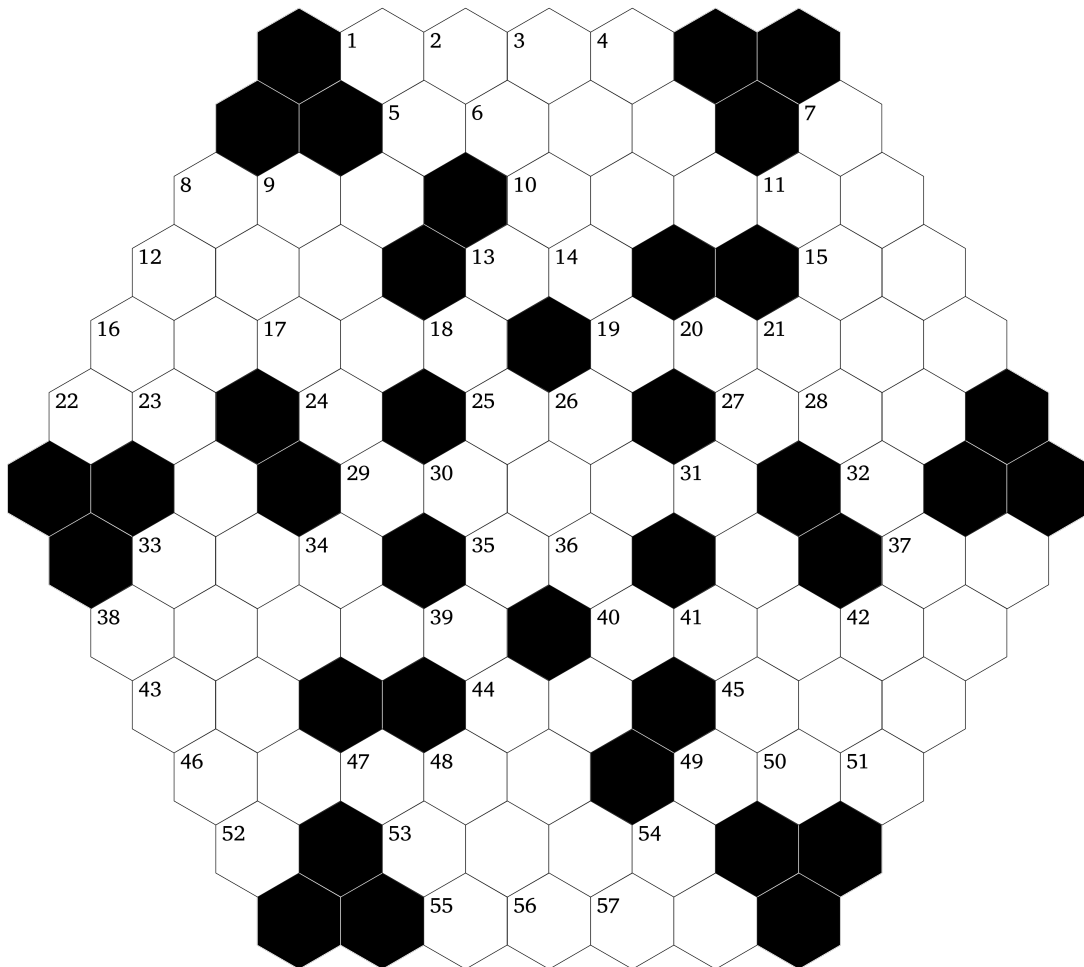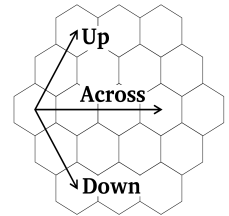# TripleCross - Hard Puzzle #13

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 5 across plus 24 up
5 Three times a prime number
8 Forty times 37 across
10 Seven times a prime number
12 53 up plus half of 13 across
13 A square
15 Mean of 26 down and 22 across
16 50 up times 56 up
19 Four times a prime number
22 Sum of digits in 19 across
25 9 down minus 28 up
27 Mean of 8 across and 32 up
29 Three thousand nine hundred thirty-eight more than 21 down
33 Mean of 41 down and 36 up
35 Mean of 42 down and 20 down
37 A square
38 Six times a prime number
40 Seven hundred six more than 16 across
43 Twice the result of 35 across minus 41 up
44 15 across plus 22 across
45 A prime number
46 7 down plus half of 2 down
49 12 across plus 22 across
53 Ninety-three times a square
55 Four times a prime number

Up

6 Mean of 24 up and 36 up
11 35 across reversed
14 49 across minus 26 down
17 Eleven times a prime number
18 Fifteen times a prime number
22 Fourteen times a prime number
23 Seven hundred fifty-two less than 22 up
24 1 down plus 36 up
28 Mean of 8 across and 37 across
30 Half of 8 across, then subtract 47 down
31 Twenty-three times a prime number
32 38 up plus 41 down
36 Mean of 37 across and 38 up
38 Twice the result of 10 across minus 21 down
39 Twelve times a prime number
41 30 up minus 56 up
43 Six times 54 down
46 Two hundred nineteen less than 46 across
50 A prime number
51 Three hundred seventy more than 22 up
52 13 across minus 34 down
53 49 across minus 13 across
55 Four thousand fifty-five less than 39 down
56 54 down minus 41 up
57 Twice the result of 8 down minus 55 up

Down

1 Mean of 37 across and 52 up
2 Nine thousand twenty-four more than 19 across
3 6 up plus 43 up
4 3 down plus 12 down
7 Twelve times 27 across
8 Seventy-nine times a prime number
9 Twice the result of 31 up minus 29 across
11 Twice a prime number
12 Mean of 22 across and 15 across
16 Twice the result of 38 across plus 54 down
18 Seven thousand seven hundred forty-four more than 17 up
20 A prime number
21 A prime number
26 Half of 32 up, then subtract 28 up
30 56 up plus 41 up
31 Five thousand six hundred forty-one more than 57 up
33 51 up minus 52 up
34 A square
38 Eleven times 38 up
39 Twice a prime number
41 One hundred forty-one more than 48 down
42 12 down plus 22 across
47 Mean of 14 up and 12 down
48 49 across plus 52 up
54 Same as 30 up

Solution: