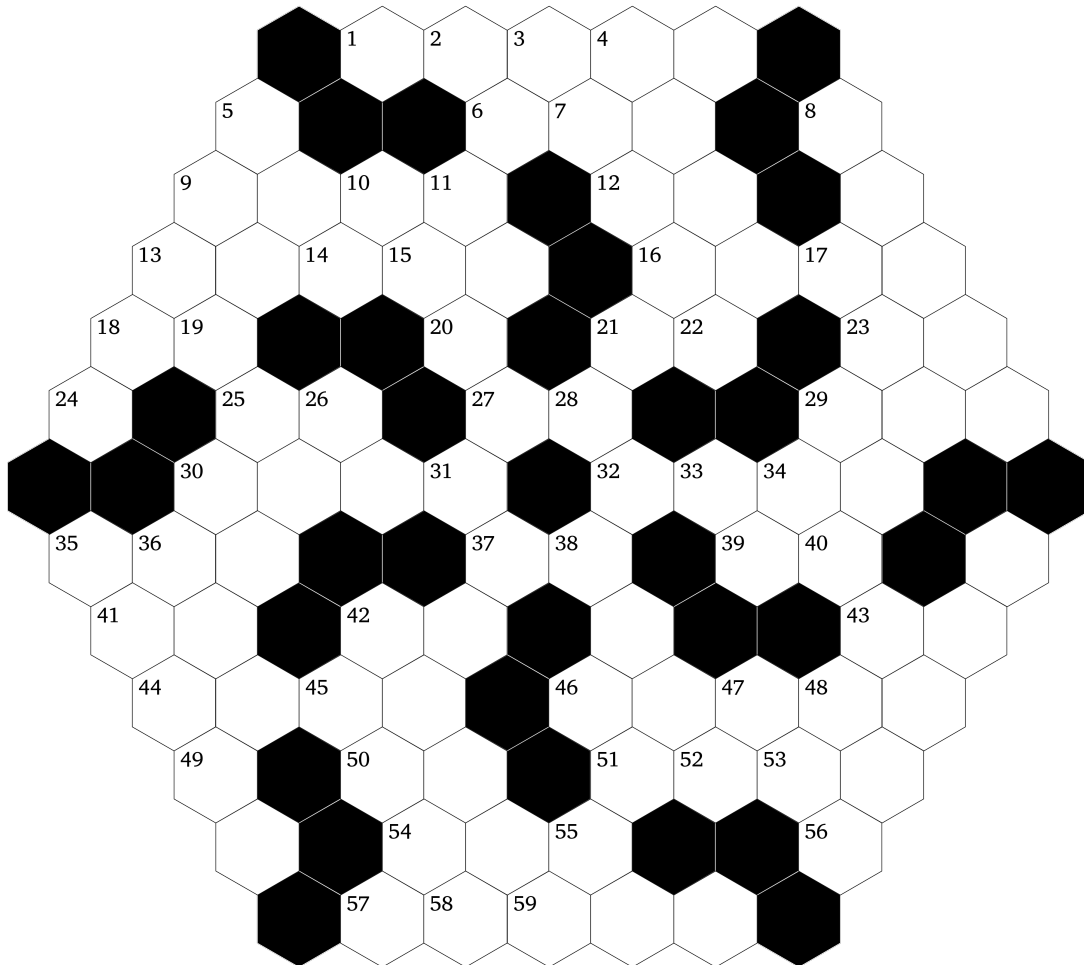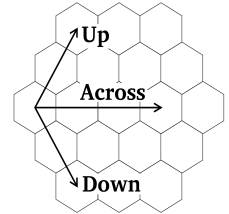# TripleCross - Hard Puzzle #9

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 Three times a prime number
6 Mean of 47 down and 17 up
9 36 down plus 30 down
12 26 down minus 43 across
13 52 up times 10 down
16 27 across times 17 up
18 A square
21 30 down minus 12 across
23 A square
25 2 down minus 41 across
27 16 across divided by 2 down
29 8 down divided by 25 across
30 A prime number
32 Twenty-two times a prime number
35 49 up times 31 down
37 55 down plus 2 down
39 35 across minus 19 up
41 Mean of 23 across and 20 up
42 41 up divided by 48 down
43 42 down divided by 28 up
44 Twice the result of 38 down plus 12 across
46 Sixty-three times a prime number
50 45 up plus 33 down
51 32 across plus 41 across
54 A prime number
57 3 down plus 57 up

Up

7 Mean of 33 down and 12 across
12 Half of 44 up, then subtract 24 up
14 48 down reversed
15 Seven hundred eighty-eight more than 32 across
17 27 across minus 23 across
19 50 across plus half of 7 up
20 47 down minus 50 across
22 46 up minus 12 across
24 Eleven times a square
28 Consecutive digits unordered
31 Mean of 25 across and 43 across
38 A square
39 Seven thousand two hundred fifty-eight more than 46 across
40 Eight times a prime number
41 Nine hundred thirty-two less than 15 up
44 Seventeen thousand two hundred seventy-five less than 46 across
45 50 across minus 31 up
46 19 up minus 14 up
49 Same as 9 down
50 Eight hundred ninety-three more than 59 up
52 37 across minus 2 down
53 Rearranged digits of 47 down
56 17 down times 46 down
57 Mean of 17 down and 47 down
58 Mean of 31 down and 12 across
59 Thirty-five times a prime number

Down

2 27 across minus 23 across
3 Four thousand nine hundred three more than 1 across
4 Seventeen times a prime number
5 45 up plus 25 across
8 Fifteen times a square
9 26 down minus 14 up
10 13 across divided by 9 down
11 52 up plus 27 across
13 Sixteen times a prime number
17 56 up divided by 46 up
26 Mean of 55 down and 18 across
28 35 across minus 6 across
29 27 across minus 22 up
30 35 across minus 19 up
31 35 across divided by 55 down
33 Mean of 43 across and 25 across
34 A prime number
35 A prime number
36 9 across minus 39 across
38 A prime number
42 Eight thousand three hundred fifty-one more than 39 up
45 Twenty-two times a square
46 22 up plus 12 across
47 18 across plus 42 across
48 45 up minus 58 up
55 13 across divided by 10 down

Solution: