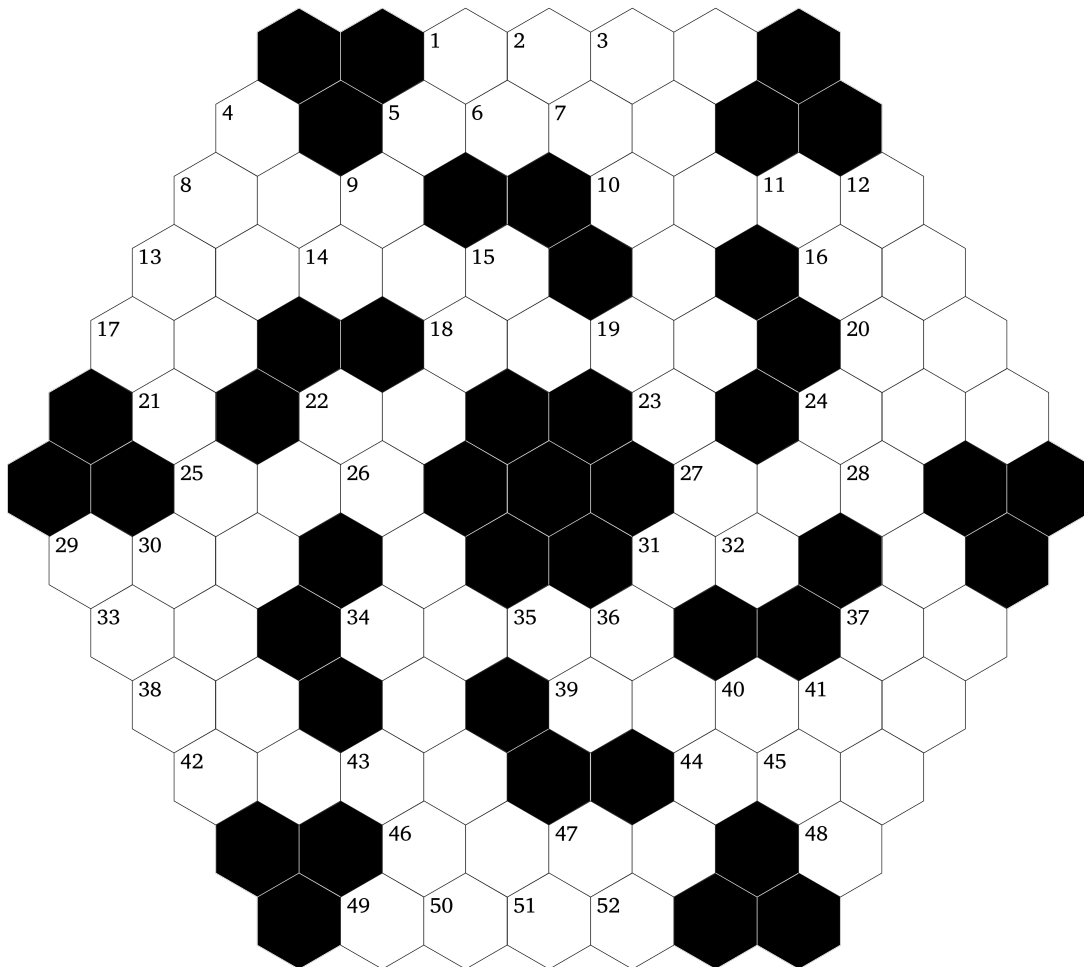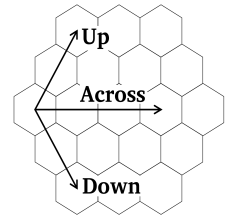# TripleCross - Challenging Puzzle #3

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 Twenty-eight times a prime number
5 A palindrome
8 24 across minus 44 across
10 Mean of 45 up and 27 across
13 Eighteen times a prime number
16 Same as 16 up
17 43 up minus 13 down
18 Sixty-eight times a prime number
20 43 up minus 35 down
22 38 across minus 34 up
24 Eleven times a prime number
25 49 up plus half of 23 up
27 Seven times 20 across
29 19 up plus 17 across
31 34 up plus 41 down
33 38 across minus 34 up
34 29 down minus 6 up
37 43 up minus 35 down
38 A square
39 Last two digits are the same as 41 down
42 18 across plus half of 14 up
44 4 down plus half of 6 up
46 11 down minus 50 up
49 A prime number

Up

6 41 down minus 7 up
7 41 down minus 51 up
10 Its digits total 7 up
14 Six times a prime number
16 Mean of 35 down and 23 up
17 Twice the result of 19 down plus 34 across
19 Mean of 43 down and 47 down
21 Nine hundred eighty-eight less than 46 across
23 A square
26 Four times a prime number
28 Nineteen times 42 up
32 Thirty-three times a prime number
33 4 down minus 38 across
34 36 down minus 33 up
38 Six times a prime number
39 Five hundred thirty-three more than 49 across
42 Mean of 22 across and 13 down
43 37 down plus 35 down
45 Eight times a prime number
48 Twice the result of 29 down minus 9 down
49 A prime number
50 20 across minus 47 down
51 41 down minus 6 up
52 A prime number

Down

1 31 across minus 16 up
2 First two digits are the same as 6 up
3 Twice the result of 26 up minus 24 across
4 22 across plus 36 down
8 6 up plus 17 across
9 A cube
11 Mean of 21 up and 39 up
12 34 down minus half of 46 across
13 11 down minus 46 across
15 Mean of 41 down and 42 up
17 One thousand forty-eight more than 52 up
19 26 up plus 15 down
22 Mean of 30 down and 29 across
24 One thousand six hundred eight more than 39 up
29 7 up plus 34 across
30 Twenty-three times a prime number
34 One thousand four hundred forty-eight more than 24 down
35 Mean of 33 across and 34 up
36 4 down minus 33 across
37 13 down plus 47 down
40 8 across minus 44 across
41 33 across plus 47 down
43 Mean of 50 up and 4 down
47 37 across minus 13 down

Solution: