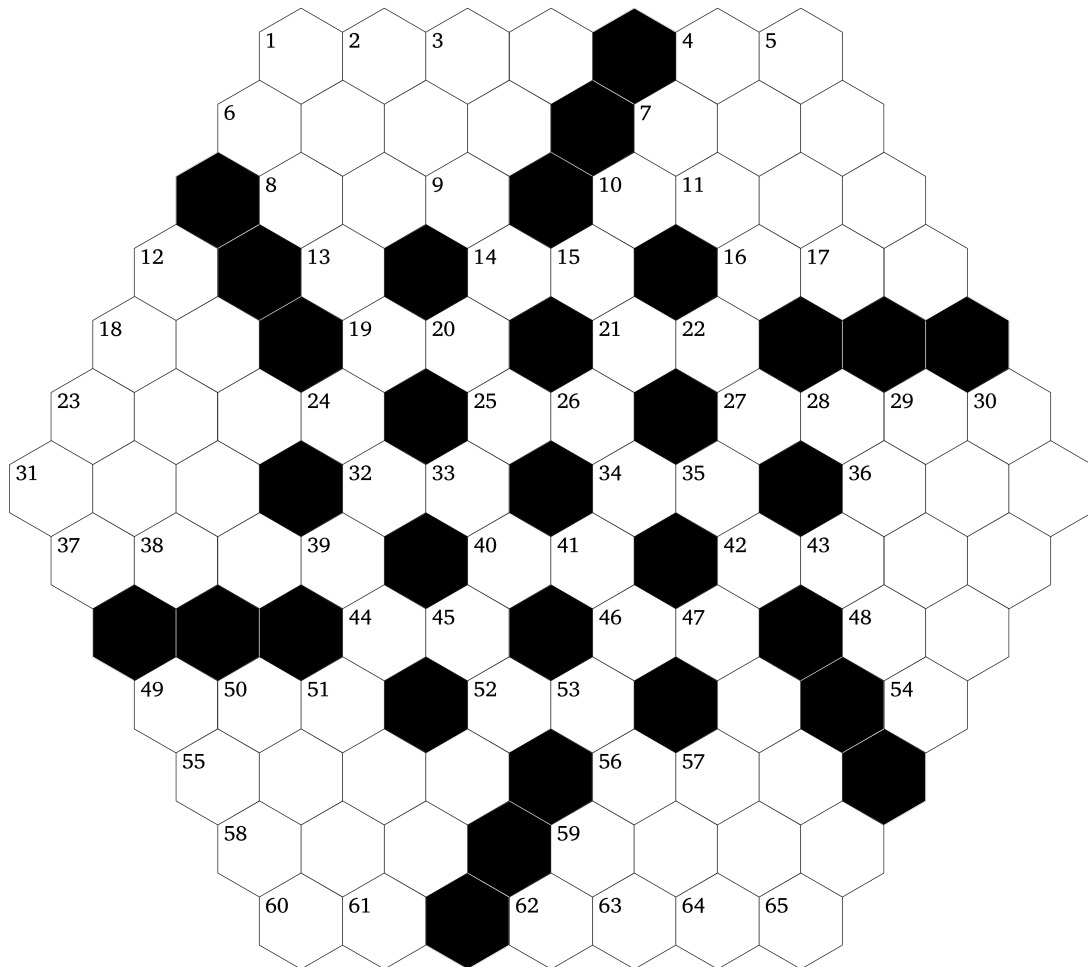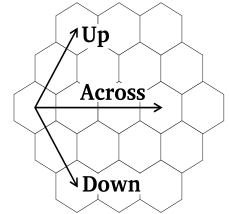# TripleCross - Challenging Puzzle #6

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 Last two digits are the same as 46 across
4 Twice 60 across
6 One thousand one hundred three more than 13 up
7 8 up plus 25 across
8 46 across plus 43 up
10 41 up times 57 down
14 31 down minus 41 up
16 53 up plus 9 up
18 55 up minus 25 across
19 Mean of 18 across and 45 down
21 Mean of 33 down and 30 down
23 Two hundred forty-six less than 10 across
25 Three-fourths of 20 up
27 Mean of 62 across and 4 across
31 Mean of 57 down and 38 up
32 Mean of 3 down and 26 down
34 Half of 22 up, then subtract 4 down
36 Mean of 30 down and 12 down
37 11 up times 20 down
40 47 up minus 44 across
42 Fifty-five times 6 up
44 52 across plus 25 across
46 60 across plus 19 across
48 Twice the result of 61 up minus 13 up
49 39 up plus 7 across
52 4 across minus 44 across
55 2 down minus 15 down
56 42 across divided by 60 across
58 Half of 23 down, then subtract 21 across
59 Three times a prime number
60 Mean of 55 up and 18 across
62 One thousand two hundred fifty-five less than 37 up

Up

6 5 down minus half of 6 down
8 24 up times 20 down
9 Forty-four times 26 down
11 24 down plus 62 up
13 31 up minus 59 down
15 Rearranged digits of 50 down
17 Mean of 29 down and 34 across
20 A square
22 Seven hundred three more than 49 down
24 8 up divided by 18 across
26 A cube
31 Twice the result of 50 down plus 39 up
33 Seven times 41 down
35 17 up plus 41 up
37 11 up plus 47 down
38 Mean of 53 down and 58 across
39 20 down plus 45 down
41 Twice the result of 32 across minus 55 up
43 63 up minus 1 across
45 A square
47 40 across plus 55 up
48 15 down plus 54 up
53 47 down divided by 7 down
54 48 up minus 21 across
55 30 down minus 59 down
58 Twice a prime number
60 21 across plus 47 up
61 28 down plus 27 across
62 Fifty-two times 20 up
63 A prime number
64 52 across times 6 up
65 31 down minus 41 up

Down

1 31 up minus 49 down
2 21 across plus 55 across
3 38 up divided by 44 across
4 Mean of 53 up and 15 up
5 A prime number
6 Thirty-two times a prime number
7 47 down divided by 41 down
12 31 across plus 45 up
15 35 up minus 60 across
18 54 up minus 29 down
20 55 up minus 25 across
22 33 up minus 60 across
23 25 across times 22 down
24 Mean of 17 up and 39 up
26 4 across minus 25 across
28 Forty-four times 31 down
29 Five times 26 up
30 Mean of 35 up and 26 down
31 14 across plus 25 across
33 62 up minus 49 across
35 60 across plus 21 across
39 20 down plus 45 down
41 45 up minus 55 up
43 Rearranged digits of 60 up
45 Mean of 59 down and 26 up
47 Rearranged digits of 63 up
49 Seven times a prime number
50 Three times 53 down
51 7 across minus 21 across
53 Rearranged digits of 55 across
57 10 across divided by 25 across
59 33 down minus 40 across

Solution:

5 2 3 8 ▉ 3 4
8 8 8 6 ▉ 6 9 4
▉ 6 7 9 ▉ 8 8 3 2
8 ▉ 7 ▉ 6 7 ▉ 9 8 1
1 1 ▉ 2 1 ▉ 7 7 ▉ ▉ ▉
8 5 8 6 ▉ 1 2 ▉ 4 3 1 5
7 8 2 ▉ 2 9 ▉ 2 9 ▉ 4 3 8
9 8 3 4 ▉ 6 1 ▉ 4 6 7 5
▉ ▉ ▉ 2 3 ▉ 3 8 ▉ 1 6
7 3 6 ▉ 1 1 ▉ 9 ▉ 1
2 8 1 9 ▉ 2 7 5 ▉
3 6 7 ▉ 3 8 3 7
1 7 ▉ 8 5 9 6