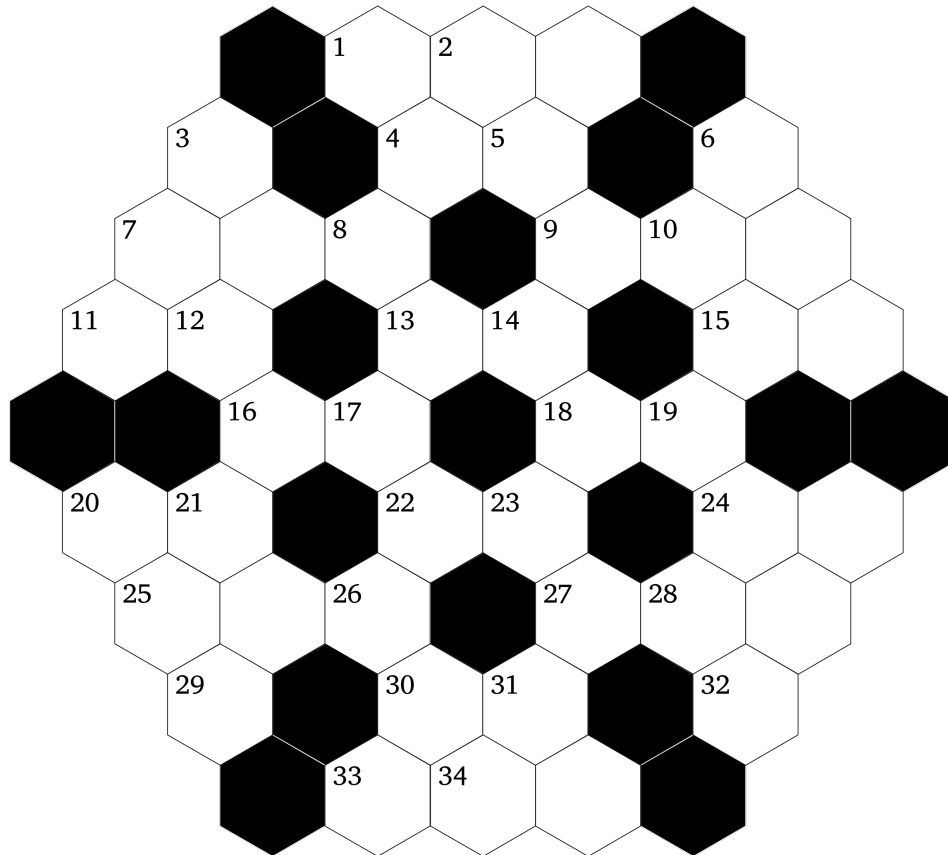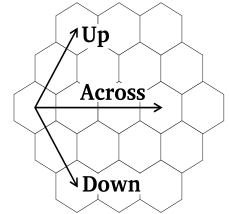Difficulty: ★★☆☆☆

TripleCross - Challenging Puzzle #17

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 Mean of 25 across and 15 across
4 23 down minus 15 across
7 6 down minus 24 across
9 28 down plus 16 across
11 14 down plus 22 across
13 A square
15 8 down minus 23 down
16 19 up minus 24 across
18 4 across minus 28 up
20 Mean of 30 across and 33 up
22 18 across plus 1 down
24 31 down reversed
25 7 across plus 21 down
27 One hundred eighty-three less than 25 up
30 19 down minus 23 up
33 23 down plus 16 across

Up

5 A square
8 28 up times 31 down
10 19 up minus 23 up
11 Twice a prime number
12 21 down reversed
14 Mean of 22 across and 3 down
17 5 up plus half of 13 across
19 32 up minus 18 across
23 A square
25 Thirteen times 28 up
26 8 down minus 18 across
28 Mean of 16 across and 30 across
29 Mean of 22 across and 9 across
32 11 across plus half of 20 across
33 4 across minus 16 across
34 First two digits are the same as 14 down

Down

1 Half of 12 up
2 33 across plus 34 up
3 28 up minus 14 up
6 A square
7 26 down plus 10 down
8 Mean of 33 across and 1 down
10 19 up minus 29 up
14 22 across minus 33 up
17 16 across reversed
19 12 up plus 22 across
20 Mean of 6 down and 4 across
21 A square
23 30 across plus 31 down
26 Twice the result of 1 across minus 33 up
28 4 across minus 31 down
31 9 across divided by eight

Solution:

A hexagonal grid puzzle with the following numbers (black hexagons shown as ■):

Row 1: ■ 4 5 4 ■
Row 2: 2 ■ 7 6 ■ 9
Row 3: 8 4 9 ■ 1 2 0
Row 4: 9 9 ■ 6 4 ■ 1 0
Row 5: ■ ■ 5 9 ■ 1 1 ■ ■
Row 6: 4 4 ■ 5 8 ■ 5 1
Row 7: 8 9 8 ■ 6 6 2
Row 8: 8 ■ 7 1 ■ 1
Row 9: ■ 1 4 5 ■