

# Challenging TripleCross Puzzles

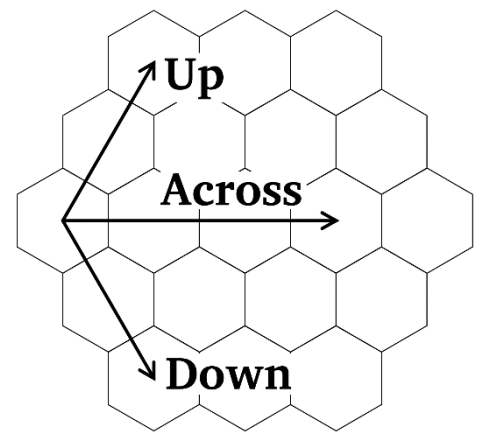
Copyright © 2023 Neil Aggarwal, all rights reserved.

## Instructions

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.



Some "words" may not have clues. They will be determined by the "words" which intersect them.

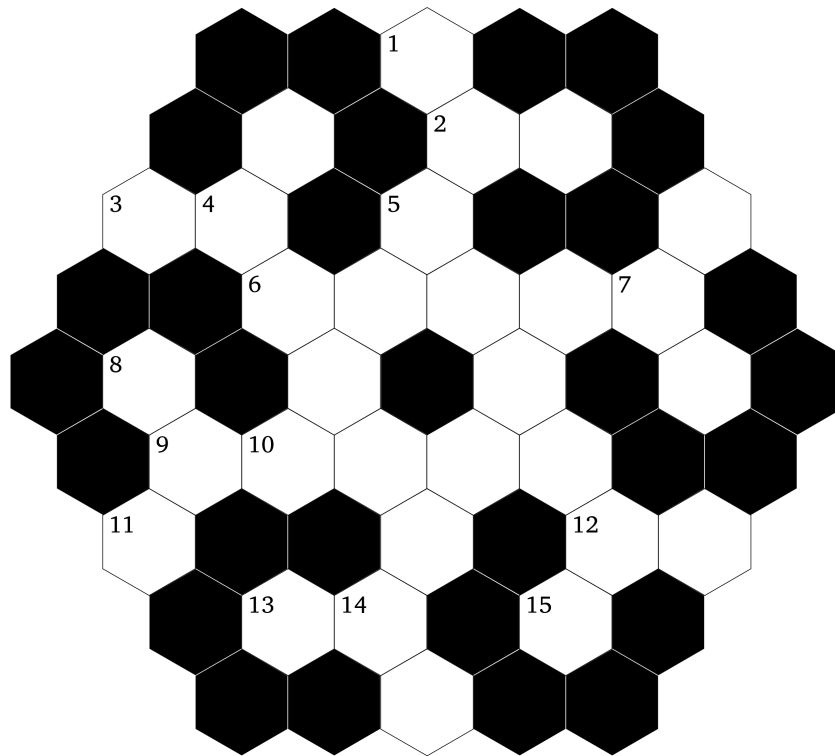
## For More Puzzles

Please visit <http://3DMathPuzzles.com> for more TripleCross, CrossFigure, and 3D puzzles!

## About the Author

Neil Aggarwal loves puzzles. Sometimes he is solving an existing puzzle, sometimes he is figuring out how to create new ones. Computer programming is always a good source of puzzles. So is using a new ingredient or making a new recipe. Sometimes the puzzle is to figure out how to get his 4x4 vehicle across a challenging trail. Life is full of puzzles, and he enjoys all of them. He also loves spending time with his family, friends, and dogs -- who, at times, are puzzles too!

## Puzzle 1



### Across

- 2 14 down minus 12 across
- 3 A square
- 6 Eighty-five times a prime number
- 9 Thirteen times a prime number
- 12 Mean of 1 down and 11 up
- 13 Twice a prime number

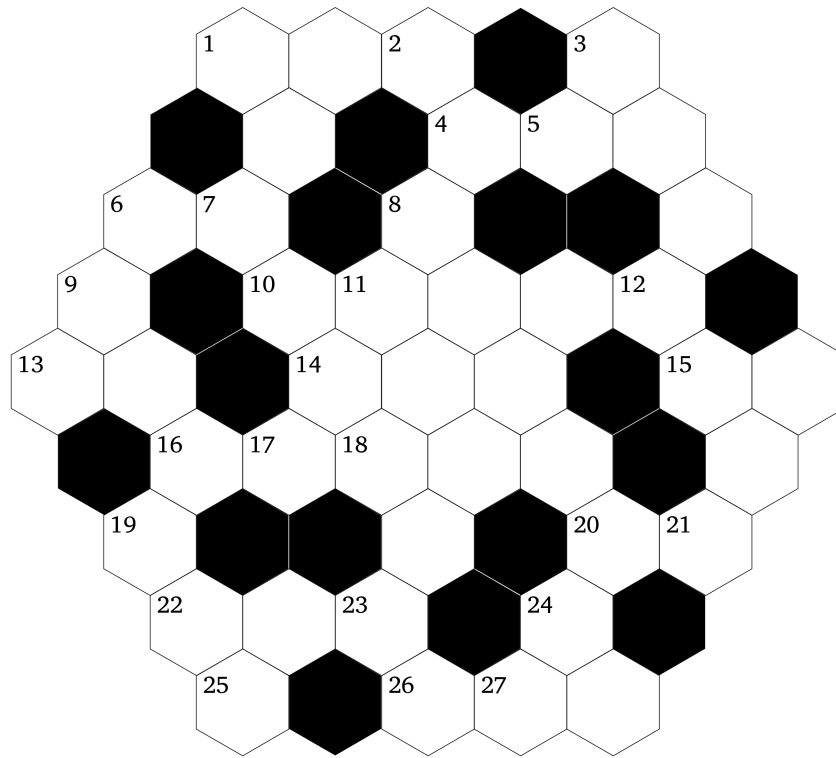
### Up

- 4 8 down plus half of 2 across
- 7 1 down plus 8 down
- 10 Mean of 9 across and 6 across
- 11 Mean of 7 down and 15 up
- 14 A prime number
- 15 Half of 12 across

### Down

- 1 Half of 7 up, then subtract 3 across
- 4 A prime number
- 5 Thirteen thousand fifty-one less than 4 down
- 7 1 down plus 8 down
- 8 Consecutive digits in ascending order
- 14 13 across minus 12 across

## Puzzle 2



### Across

- 1 Twice the result of 27 up plus 12 up
- 4 22 across plus 5 up
- 6 Twice a prime number
- 10 Sixty-five times a prime number
- 13 Ten times a prime number
- 14 11 down minus 9 down
- 15 Twice 20 across
- 16 Four thousand six hundred fifty-seven less than 7 down
- 20 A square
- 22 12 down plus half of 21 up
- 26 Mean of 18 up and 6 across

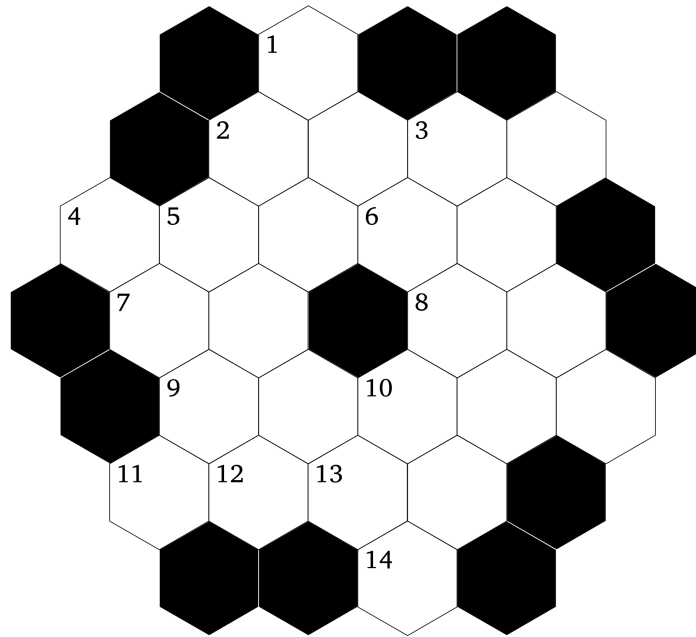
### Up

- 5 Seven times a prime number
- 7 Eight times a prime number
- 12 19 up minus 24 down
- 13 10 across divided by 23 down
- 17 Fifteen thousand eight hundred thirty-six more than 8 down
- 18 Ten times a prime number
- 19 3 down minus 1 down
- 21 Mean of 7 up and 26 across
- 23 A prime number
- 25 13 across minus 15 across
- 27 Three-fifths of 14 across

### Down

- 1 Mean of 23 down and 5 up
- 2 Mean of 6 across and 24 down
- 3 Half of 27 up
- 7 Forty-eight times a prime number
- 8 Twice the result of 16 across plus 5 up
- 9 Three times a prime number
- 11 Ninety-seven less than 18 up
- 12 Mean of 26 across and 14 across
- 19 Two hundred forty-three more than 13 up
- 23 Consecutive digits in descending order
- 24 Three-fifths of 13 across

### Puzzle 3



#### Across

- 2 4 across minus 1 down
- 4 First two digits are the same as first two digits of 7 up
- 7 Twice a prime number
- 8 Three times a prime number
- 9 Forty-two times a prime number
- 11 Ten times a prime number

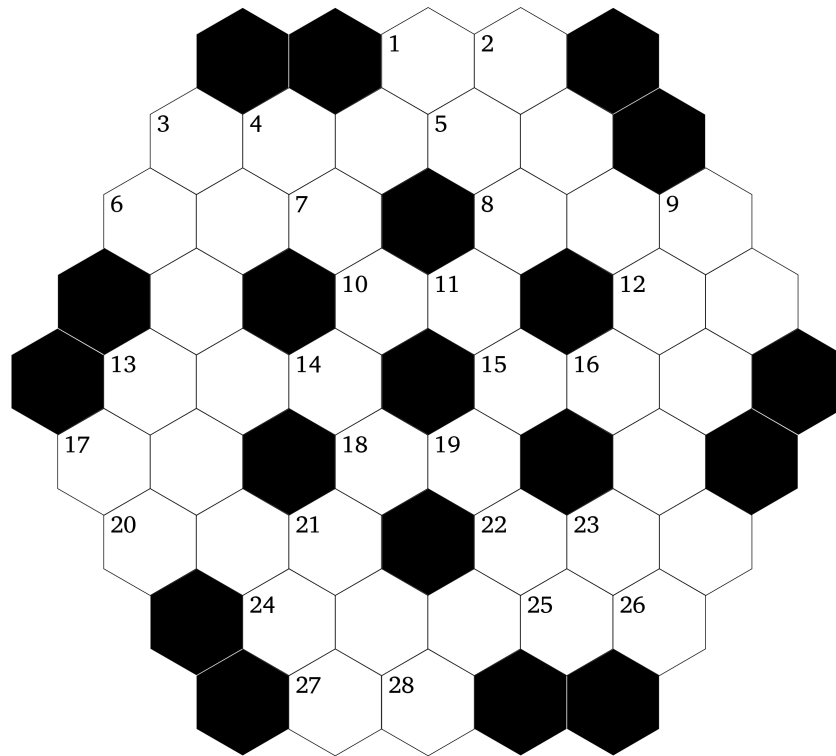
#### Up

- 6 A prime number
- 7 A palindrome
- 11 Eighty times a prime number
- 12 Seven times a prime number
- 13 Three thousand one hundred two more than 4 across
- 14 7 across plus half of 11 across

#### Down

- 1 Fifteen thousand eight hundred thirty-five less than 5 down
- 2 Twice a prime number
- 3 Twice the result of 5 down minus 13 up
- 4 A prime number
- 5 Six thousand seven hundred sixty more than 4 across
- 10 Four times a prime number

## Puzzle 4



### Across

- 1 14 up minus 9 down
- 3 One thousand five hundred sixty-three more than 17 up
- 6 13 across minus 17 down
- 8 5 up times 9 down
- 10 19 up plus 11 down
- 12 Mean of 18 across and 17 down
- 13 Seventeen times 19 up
- 15 Twice a prime number
- 17 6 down minus 11 up
- 18 16 up minus 16 down
- 20 23 down plus half of 12 across
- 22 One hundred thirteen less than 6 down
- 24 Five times a prime number
- 27 26 up plus 18 across

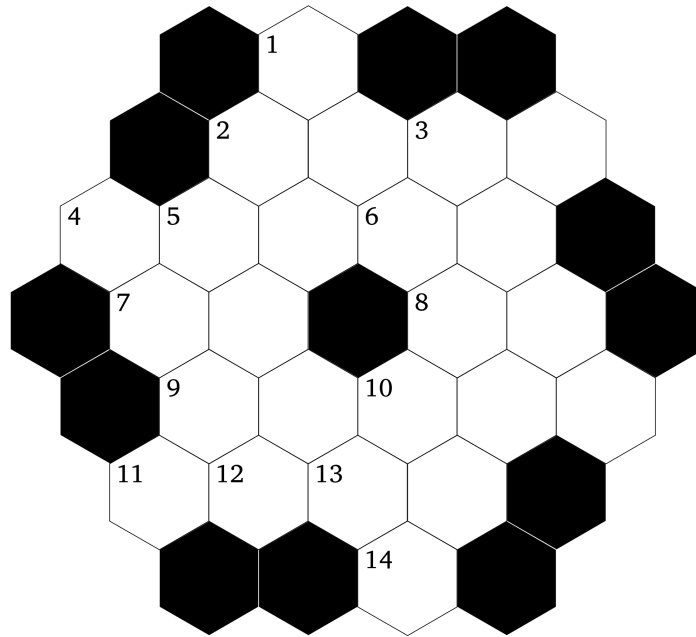
### Up

- 5 A square
- 6 23 down minus 19 up
- 7 15 across reversed
- 11 24 up minus 27 across
- 14 27 across plus 5 up
- 16 5 up times 11 down
- 17 Last two digits are the same as 11 down
- 19 20 across minus 3 down
- 20 3 down plus half of 1 across
- 24 A cube
- 25 Eleven thousand two hundred seventy-six less than 2 down
- 26 9 down plus 19 up
- 27 Mean of 10 across and 27 across
- 28 A prime number

### Down

- 1 13 across plus 3 down
- 2 One thousand seven hundred less than 13 down
- 3 11 down plus 19 up
- 4 Four times a prime number
- 6 A cube
- 9 17 down minus 26 up
- 11 22 across minus 8 across
- 13 Its digits total 18 across
- 14 Four times 18 across
- 16 4 down minus 26 up
- 17 A square
- 19 Twice the result of 11 up minus 28 up
- 21 27 up plus half of 14 up
- 23 Mean of 14 down and 14 up

### Puzzle 5



**Across**

- 2 Ten times a prime number
- 4 Eight times a prime number
- 7 Same as 12 up
- 8 A prime number
- 9 Eighty-nine times a prime number
- 11 First two digits are the same as first two digits of 13 up

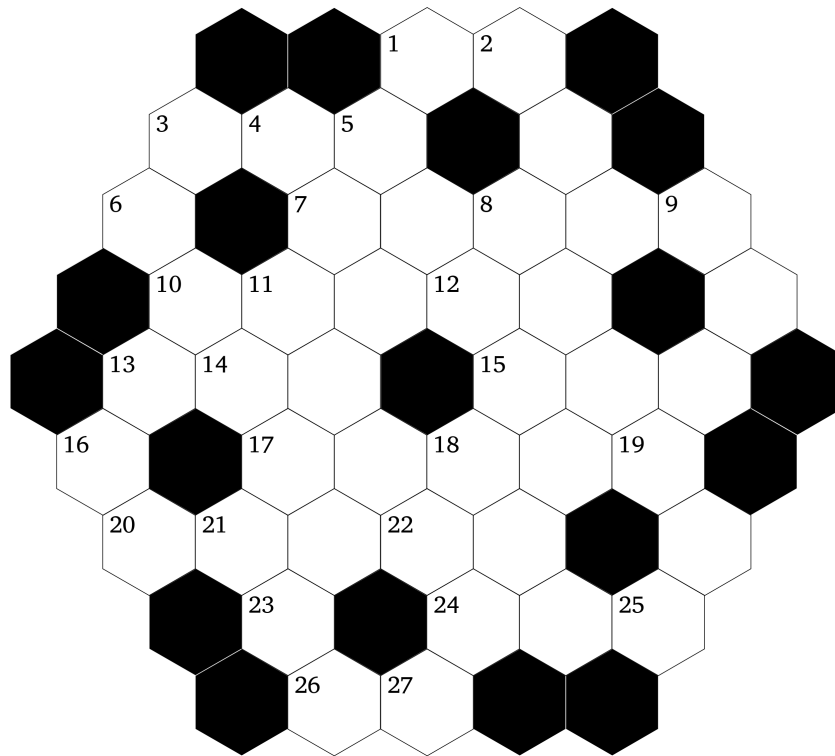
**Up**

- 6 A prime number
- 7 A prime number
- 11 Mean of 5 down and 14 up
- 12 Three times a prime number
- 13 Three thousand six hundred twenty-six more than 11 up
- 14 Nineteen times a prime number

**Down**

- 1 3 down plus half of 13 up
- 2 A prime number
- 3 One thousand six hundred seventy-five more than 11 across
- 4 11 across minus 8 across
- 5 First two digits are the same as 6 up
- 10 Mean of 7 across and 2 down

## Puzzle 6



### Across

- 1 18 down minus 25 up
- 3 All digits are the same
- 7 8 down plus 21 down
- 10 Fifty-five times a prime number
- 13 Seven times a square
- 15 4 down minus half of 16 down
- 17 Twenty-six times a prime number
- 20 A prime number
- 24 Mean of 3 across and 16 down
- 26 A square

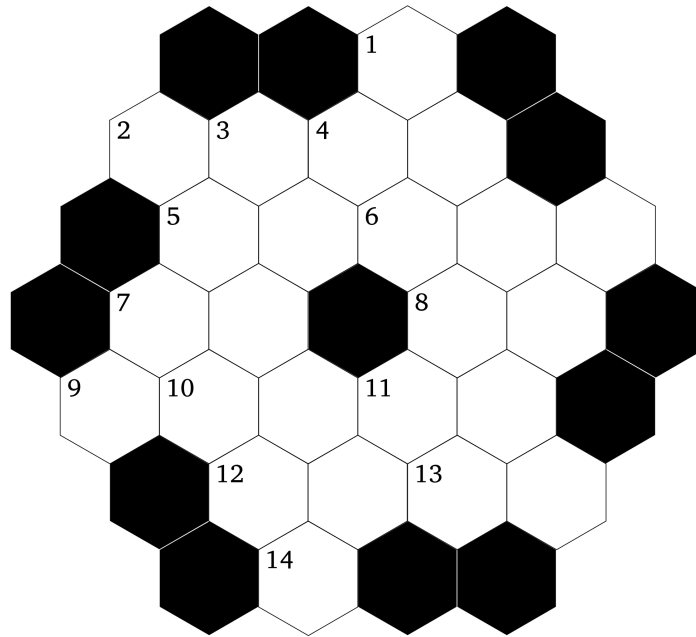
### Up

- 6 Sum of digits in 14 up
- 12 A prime number
- 14 Twenty-three times a prime number
- 16 19 up minus 21 down
- 19 Half of 11 down, then subtract 10 across
- 21 Five times a prime number
- 22 First three digits are the same as 18 down
- 23 Twenty-six times a prime number
- 25 A square
- 27 Last three digits are the same as last three digits of 17 across

### Down

- 2 Three times 21 down
- 4 Ten times a square
- 5 Twice a prime number
- 6 12 up times 13 across
- 8 Sixty-two times a prime number
- 9 A prime number
- 11 Sixty-eight times a prime number
- 16 1 across minus 25 up
- 18 Six times a prime number
- 21 Twice a prime number

## Puzzle 7



### Across

- 2 A prime number
- 5 Eight thousand nine hundred less than 9 across
- 7 A prime number
- 8 A prime number
- 9 Forty-one times a prime number
- 12 First two digits are the same as 12 up

### Up

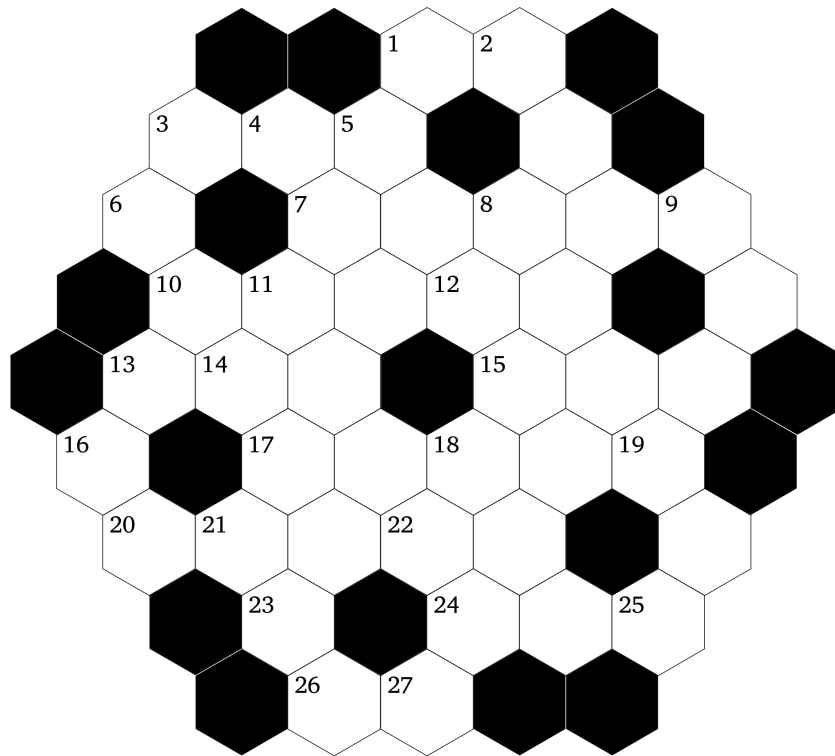
- 6 A prime number
- 9 A prime number
- 10 First two digits are the same as first two digits of 7 down
- 12 A prime number
- 13 9 across divided by 12 up
- 14 A prime number

### Down

- 1 A prime number
- 2 Mean of 10 up and 4 down
- 3 6 up minus 7 across
- 4 A prime number
- 7 Seven times a prime number
- 11 A prime number



## Puzzle 8



### Across

- 1 Consecutive digits in descending order
- 3 13 across minus 2 down
- 7 Forty-five times a prime number
- 10 Twice the result of 6 down plus 7 across
- 13 A prime number
- 15 A prime number
- 17 Three thousand four hundred thirty-one more than 5 down
- 20 Last two digits are the same as 6 up
- 24 Mean of 23 up and 12 up
- 26 Consecutive digits in ascending order

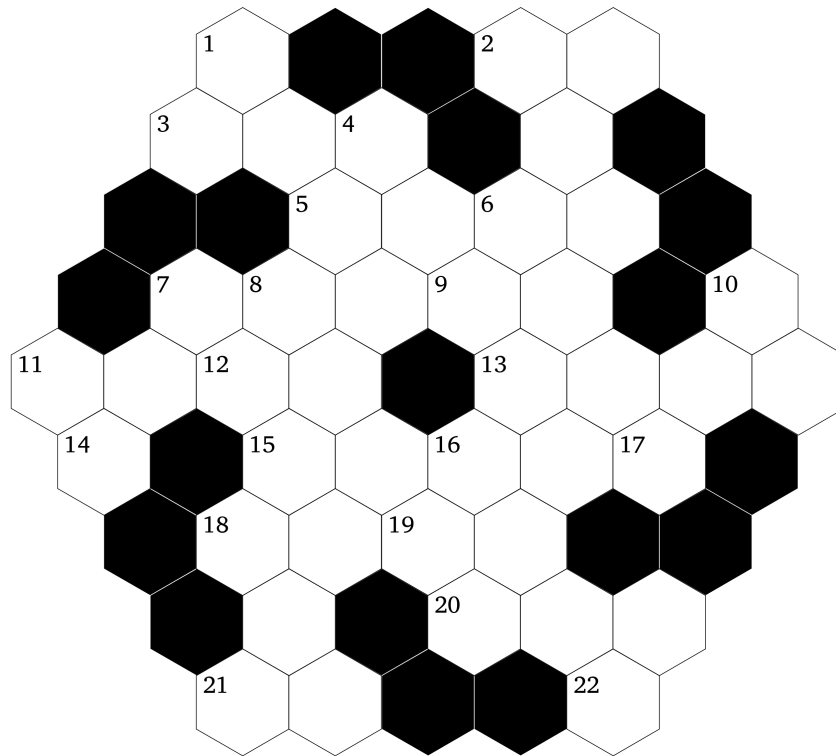
### Up

- 6 A prime number
- 12 Three times 15 across
- 14 20 across plus 1 across
- 16 Twice the result of 3 across plus 15 across
- 19 Thirty times a prime number
- 21 A palindrome
- 22 Three thousand seven hundred sixty-five less than 7 across
- 23 Twenty-five times a prime number
- 25 A prime number
- 27 Seventeen times a prime number

### Down

- 2 Twice the result of 21 up minus 11 down
- 4 Three times a prime number
- 5 Twenty-six times a prime number
- 6 22 up minus 16 up
- 8 Ninety-three times a prime number
- 9 Twice a square
- 11 Seven times a prime number
- 16 A square
- 18 17 across divided by 25 up
- 21 Mean of 19 up and 26 across

## Puzzle 9



### Across

- 2 Six times a prime number
- 3 Twice a prime number
- 5 1 down plus half of 22 up
- 7 First two digits are the same as first two digits of 16 down
- 11 18 across plus 18 down
- 13 One thousand eight hundred sixty-one more than 12 up
- 15 A square
- 18 One thousand seventy more than 7 down
- 20 Six times a square
- 21 A prime number

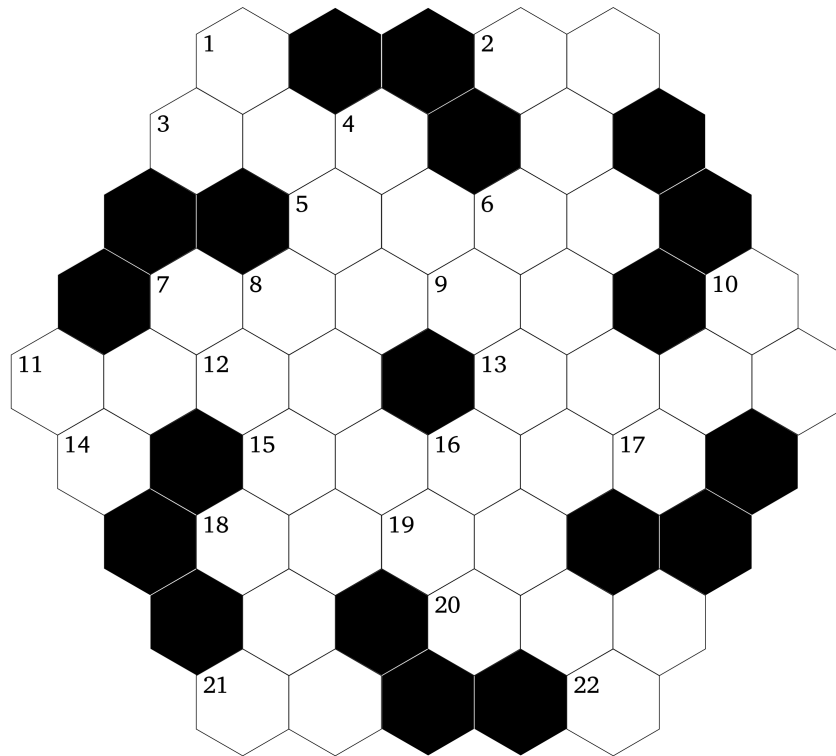
### Up

- 3 Mean of 22 up and 20 across
- 9 Mean of 13 across and 20 up
- 12 Consecutive digits unordered
- 14 9 up divided by forty-three
- 17 18 up divided by 2 down
- 18 Five thousand four hundred seventeen more than 7 across
- 19 A prime number
- 20 Thirteen times a prime number
- 21 Two hundred seventy-six less than 12 up
- 22 Eight times a prime number

### Down

- 1 Seven times a prime number
- 2 A prime number
- 4 Thirteen thousand eight hundred thirty-five more than 7 across
- 6 Sixty-seven times a prime number
- 7 Four times a prime number
- 8 Eighteen thousand four hundred twenty-one more than 4 down
- 10 Mean of 11 down and 21 across
- 11 14 up minus 21 across
- 16 3 across plus half of 12 up
- 18 Seven times a prime number

## Puzzle 10



### Across

- 2 Six times a prime number
- 3 Twice a prime number
- 5 1 down plus half of 22 up
- 7 First two digits are the same as first two digits of 16 down
- 11 18 across plus 18 down
- 13 One thousand eight hundred sixty-one more than 12 up
- 15 A square
- 18 One thousand seventy more than 7 down
- 20 Six times a square
- 21 A prime number

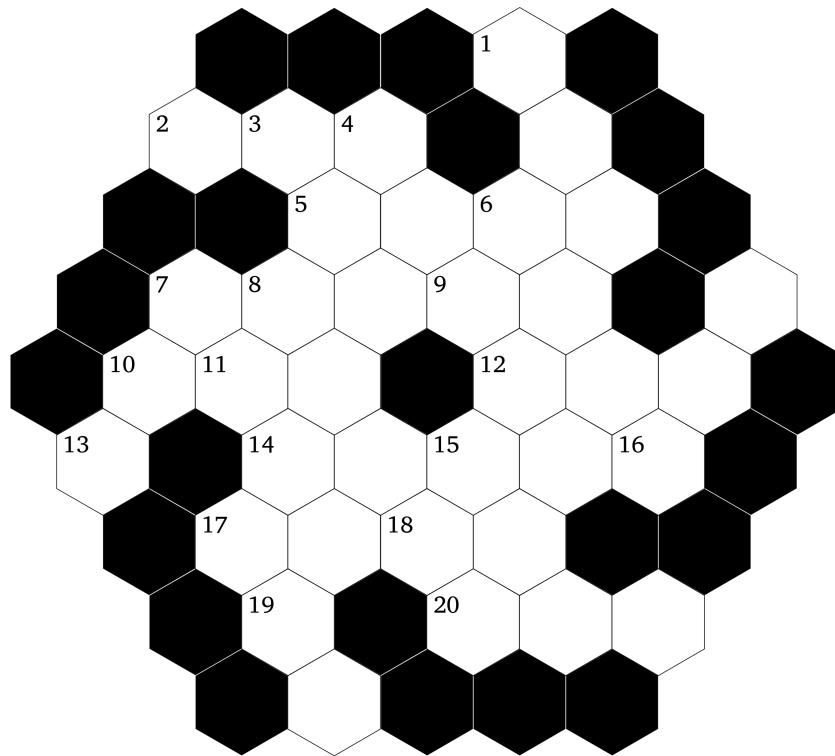
### Up

- 3 Mean of 22 up and 20 across
- 9 Mean of 13 across and 20 up
- 12 Consecutive digits unordered
- 14 9 up divided by forty-three
- 17 18 up divided by 2 down
- 18 Five thousand four hundred seventeen more than 7 across
- 19 A prime number
- 20 Thirteen times a prime number
- 21 Two hundred seventy-six less than 12 up
- 22 Eight times a prime number

### Down

- 1 Seven times a prime number
- 2 A prime number
- 4 Thirteen thousand eight hundred thirty-five more than 7 across
- 6 Sixty-seven times a prime number
- 7 Four times a prime number
- 8 Eighteen thousand four hundred twenty-one more than 4 down
- 10 Mean of 11 down and 21 across
- 11 14 up minus 21 across
- 16 3 across plus half of 12 up
- 18 Seven times a prime number

## Puzzle 11



### Across

- 2 Mean of 20 across and 9 up  
 5 Six times a prime number  
 7 First three digits are the same as 20 across  
 10 Rearranged digits of 20 across  
 12 A prime number  
 14 Seven less than 17 up  
 17 Thirteen times a prime number  
 20 Twice the result of 19 up plus 12 across

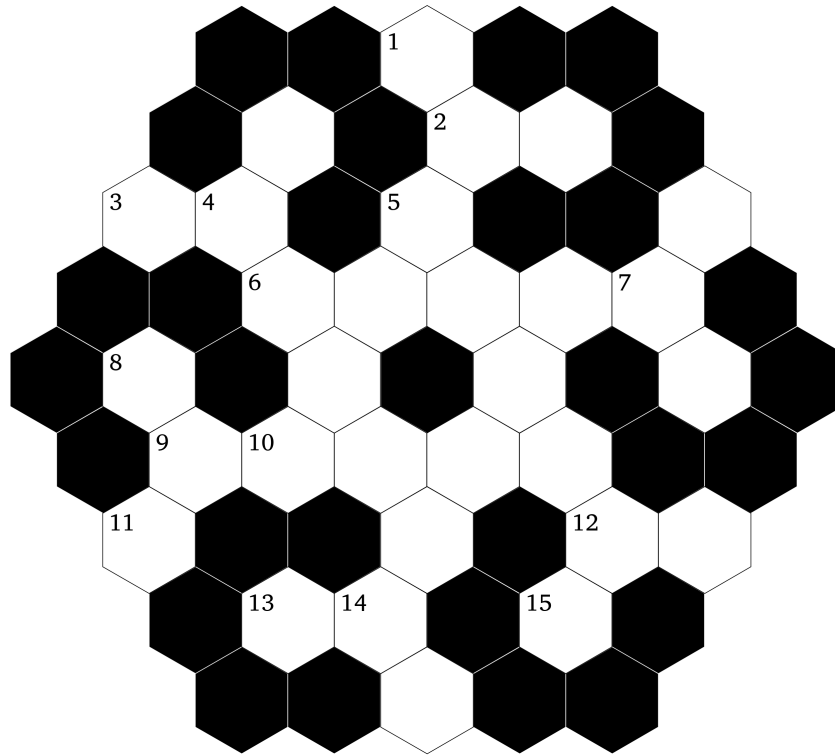
### Up

- 9 Twice the result of 11 up minus 6 down  
 11 A prime number  
 13 A prime number  
 16 Eight times a prime number  
 17 Sixty-one less than 8 down  
 18 Six hundred thirty-three less than 8 down  
 19 Eighteen times a prime number  
 20 Mean of 4 down and 16 up

### Down

- 1 Twice a prime number  
 3 2 across minus 13 up  
 4 Forty-two times a square  
 6 A prime number  
 7 Seven times a prime number  
 8 14 across plus half of 16 up  
 15 17 up divided by 1 down  
 17 A prime number

## Puzzle 12



### Across

- 2 7 down minus 4 up
- 3 1 down plus half of 11 up
- 6 Fifty-eight times a prime number
- 9 Three hundred sixty-one more than 4 down
- 12 7 up reversed
- 13 Three times a prime number

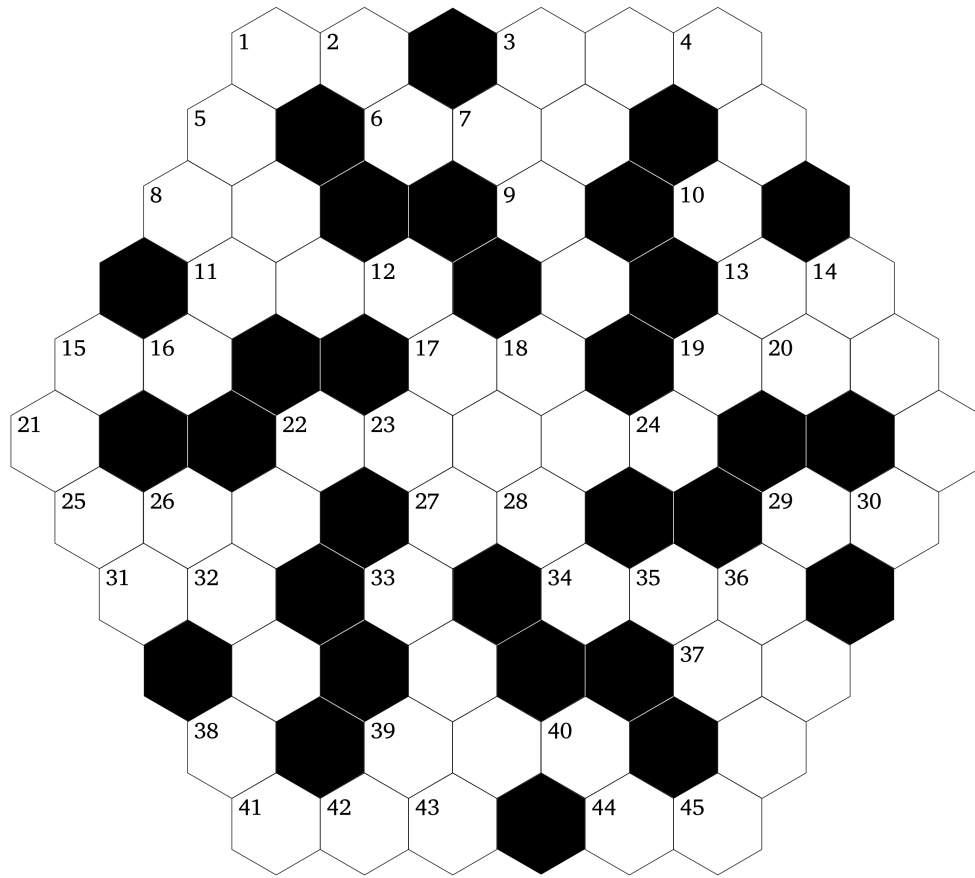
### Up

- 4 2 across minus 12 across
- 7 12 across reversed
- 10 Twice the result of 9 across plus 15 up
- 11 Mean of 13 across and 4 up
- 14 A prime number
- 15 7 down minus 4 up

### Down

- 1 Three-fourths of 7 down
- 4 Twice a prime number
- 5 Mean of 4 down and 8 down
- 7 Twice the result of 7 up minus 13 across
- 8 14 down minus 4 up
- 14 A prime number

## Puzzle 13



### Across

- 1 45 up minus 35 down
- 3 37 up plus 8 across
- 6 Fourteen times a prime number
- 8 A square
- 11 1 across plus half of 17 across
- 13 29 across plus 17 across
- 15 A square
- 17 A square
- 19 3 across minus 10 down
- 25 Forty-one times 38 up
- 27 Mean of 20 up and 30 up
- 29 34 across minus half of 19 across
- 31 43 up minus 2 down

### Up

- 7 A square
- 8 44 across plus 21 up
- 9 39 down times 28 up
- 10 21 up minus 3 down
- 16 35 down plus 23 up
- 20 32 up divided by 38 down
- 21 33 down minus 37 across
- 23 40 down plus 10 up
- 24 42 up minus 43 up
- 28 9 up divided by 10 up
- 30 Half of 42 up, then subtract 41 across
- 31 39 across minus 8 up
- 32 38 up times 4 down

### Down

- 2 33 up divided by 24 up
- 3 Mean of 13 across and 31 across
- 4 Mean of 40 down and 37 across
- 5 8 across times 36 down
- 7 Mean of 25 across and 21 up
- 8 23 up minus 37 across
- 10 Mean of 41 across and 34 across
- 12 First two digits are the same as first two digits of 42 up
- 14 9 up plus 44 across
- 18 30 up plus 37 across
- 21 28 up times 30 up
- 23 15 across reversed
- 26 27 across plus 37 up

**Across (continued)**

34 42 up minus 23 up

37 Twice the result of 36 down plus 31 across

39 33 down plus 38 down

41 29 across plus 3 down

44 Mean of 43 up and 30 up

**Up (continued)**

33 Fifty-eight times a prime number

37 3 across minus 17 across

38 32 up divided by 20 up

42 Rearranged digits of 33 down

43 8 up minus 44 across

**Down (continued)**

33 39 across minus 38 up

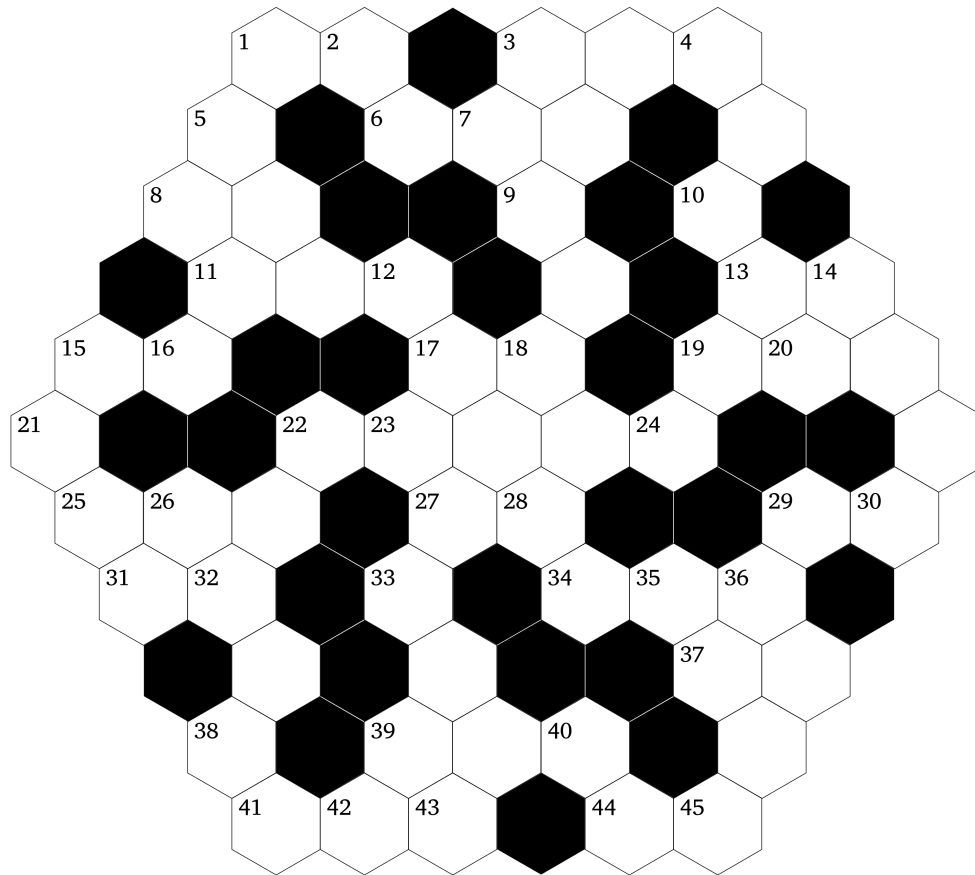
35 Thirty-seven times 31 up

36 7 up minus 31 up

38 25 across divided by forty-one

39 3 down minus 28 up

## Puzzle 14



### Across

- 1 45 up minus 35 down
- 3 37 up plus 8 across
- 6 Fourteen times a prime number
- 8 A square
- 11 1 across plus half of 17 across
- 13 29 across plus 17 across
- 15 A square
- 17 A square
  
- 19 3 across minus 10 down
- 25 Forty-one times 38 up
- 27 Mean of 20 up and 30 up
  
- 29 34 across minus half of 19 across
- 31 43 up minus 2 down

### Up

- 7 A square
- 8 44 across plus 21 up
- 9 39 down times 28 up
- 10 21 up minus 3 down
- 16 35 down plus 23 up
- 20 32 up divided by 38 down
- 21 33 down minus 37 across
- 23 40 down plus 10 up
  
- 24 42 up minus 43 up
- 28 9 up divided by 10 up
- 30 Half of 42 up, then subtract 41 across
- 31 39 across minus 8 up
- 32 38 up times 4 down

### Down

- 2 33 up divided by 24 up
- 3 Mean of 13 across and 31 across
- 4 Mean of 40 down and 37 across
- 5 8 across times 36 down
- 7 Mean of 25 across and 21 up
- 8 23 up minus 37 across
- 10 Mean of 41 across and 34 across
- 12 First two digits are the same as first two digits of 42 up
- 14 9 up plus 44 across
- 18 30 up plus 37 across
- 21 28 up times 30 up
  
- 23 15 across reversed
- 26 27 across plus 37 up



**Across (continued)**

34 42 up minus 23 up

37 Twice the result of 36 down plus 31  
across

39 33 down plus 38 down

41 29 across plus 3 down

44 Mean of 43 up and 30 up

**Up (continued)**

33 Fifty-eight times a prime number

37 3 across minus 17 across

38 32 up divided by 20 up

42 Rearranged digits of 33 down

43 8 up minus 44 across

**Down (continued)**

33 39 across minus 38 up

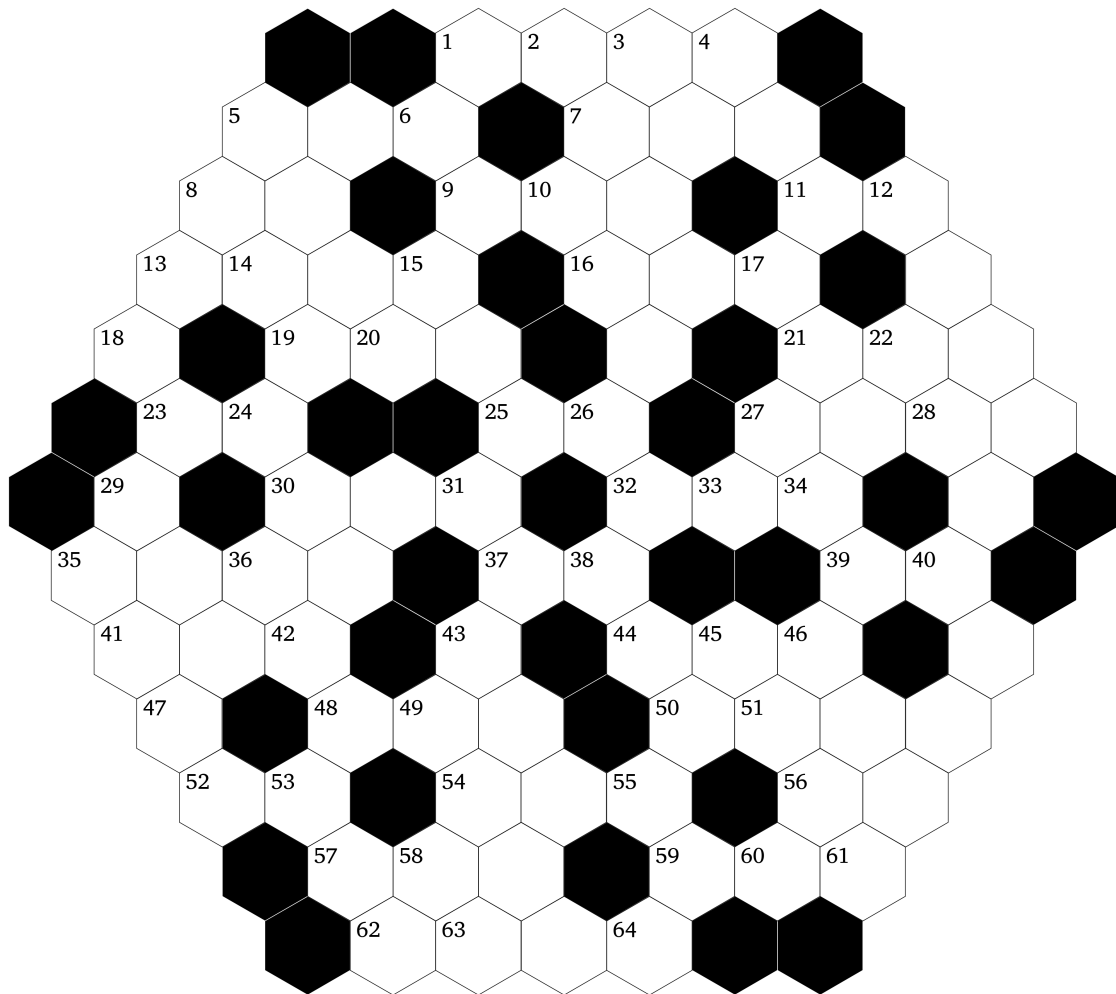
35 Thirty-seven times 31 up

36 7 up minus 31 up

38 25 across divided by forty-one

39 3 down minus 28 up

## Puzzle 15



### Across

- 1 2 down plus 25 across
- 5 55 up minus 10 up
- 7 Ten times 3 down
  
- 8 43 down minus 57 across
- 9 32 across plus 53 down
- 11 10 down minus 35 up
- 13 20 up plus 48 across
- 16 Mean of 48 across and 54 across
- 19 5 across minus 41 up
- 21 11 across times 52 across

### Up

- 6 8 across plus 31 up
- 10 Rearranged digits of 16 across
- 14 Twice the result of 4 down minus 5 across
- 16 Four times a prime number
- 17 35 across divided by sixty-eight
- 18 63 up plus 13 across
- 20 Six times 58 down
- 24 27 down minus 7 across
- 26 33 up minus 27 down
- 28 Twice the result of 15 down minus 39 across

### Down

- 2 1 across minus half of 8 across
- 3 6 down minus 18 down
- 4 31 down plus 41 across
  
- 5 43 down plus 16 across
- 6 54 across minus 37 across
- 8 49 up minus 25 across
- 10 Three times 24 up
- 12 A prime number
- 15 46 down divided by four
- 17 Mean of 63 up and 10 down

**Across (continued)**

- 23 40 up minus 14 up  
25 Mean of 31 down and 3 down  
27 35 across plus 35 down  
30 36 down minus 29 down  
  
32 59 across plus 29 down  
35 Four-fifths of 50 across  
  
37 Half of 38 up, then subtract 11 across  
39 49 up divided by eight  
41 46 down minus 26 up  
44 Five times 54 across  
48 52 across plus 38 down  
50 Eighty-five times 55 down  
52 37 across minus 11 across  
54 60 up minus 24 up  
56 8 across minus 40 down  
57 62 across minus 38 down  
59 21 across minus 6 up  
62 13 across plus 53 down

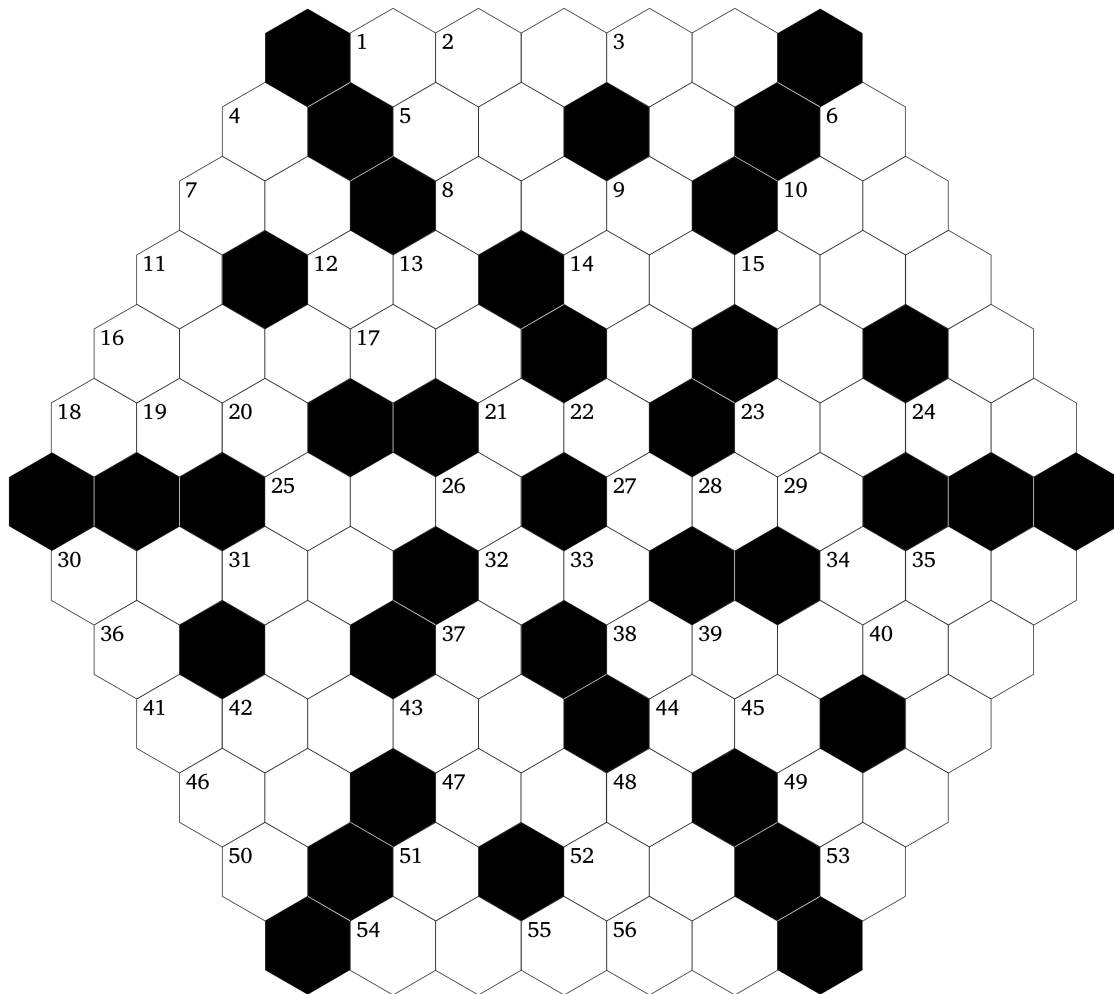
**Up (continued)**

- 31 25 across minus 11 across  
33 8 across plus 36 down  
34 Mean of 61 up and 35 up  
35 Half of 49 up  
  
38 54 across minus 52 across  
40 30 across plus 24 down  
  
41 56 across plus 31 down  
42 Mean of 40 up and 13 across  
47 A prime number  
49 Thirty-two times 64 up  
51 35 up plus 56 across  
53 38 up minus 6 up  
55 Mean of 22 down and 58 down  
60 Mean of 11 across and 14 up  
61 Sixty-five times 3 down  
62 56 across plus 34 up  
63 Seventeen times 40 down  
64 41 up minus 31 up

**Down (continued)**

- 18 Mean of 64 up and 25 across  
22 Mean of 62 across and 10 down  
24 28 up plus 40 down  
26 Twice the result of 55 up minus 16 across  
27 9 across minus 26 down  
29 Twice the result of 59 across plus 17 up  
31 29 down minus 35 up  
  
35 47 up minus 46 down  
36 43 down minus 55 down  
38 27 down plus 35 up  
40 17 up minus 52 across  
43 33 up minus 52 across  
45 Twenty-three times a prime number  
46 23 across plus 32 across  
49 Eight times a prime number  
53 5 across minus 18 down  
55 Mean of 8 across and 40 down  
58 63 up reversed

## Puzzle 16



### Across

- 1 Mean of 46 up and 17 up  
 5 Mean of 42 down and 36 up  
 7 20 up minus 18 across  
 8 Mean of 22 up and 30 across  
 10 Mean of 40 up and 21 across  
 12 A square  
 14 16 across plus 48 down  
 16 Twenty-seven times a prime number  
 18 Mean of 1 down and 44 across  
 21 Twice the result of 40 up minus 26 down

### Up

- 5 Mean of 26 up and 44 across  
 14 Twenty-six times a square  
 15 Three times a prime number  
 17 A prime number  
 18 14 across minus 15 up  
 19 3 down minus 26 up  
 20 Mean of 45 up and 36 up  
 22 Seventy-four times 52 across  
 24 A cube  
 26 3 down minus 26 down

### Down

- 1 23 down divided by 36 up  
 2 26 up plus 38 across  
 3 5 up minus 35 down  
 4 Sixty-nine times 12 across  
 6 One thousand four hundred seventy-seven less than 30 down  
 9 Two-thirds of 36 up  
 10 24 up minus 5 up  
 11 One thousand three hundred fifty-nine more than 17 up  
 13 Mean of 25 across and 16 down  
 15 23 across minus 8 across

**Across (continued)**

- 23 Ninety-eight times 35 down  
25 Mean of 18 across and 47 across  
27 A square  
30 39 down minus 4 down  
32 A square  
34 31 up times 3 down  
38 2 down minus 52 across  
41 Mean of 16 across and 18 across  
44 51 down plus 29 up  
46 2 down minus 38 across  
47 Mean of 31 down and 49 across  
49 32 across minus 29 up  
52 31 up minus 46 across  
54 Mean of 53 up and 51 down

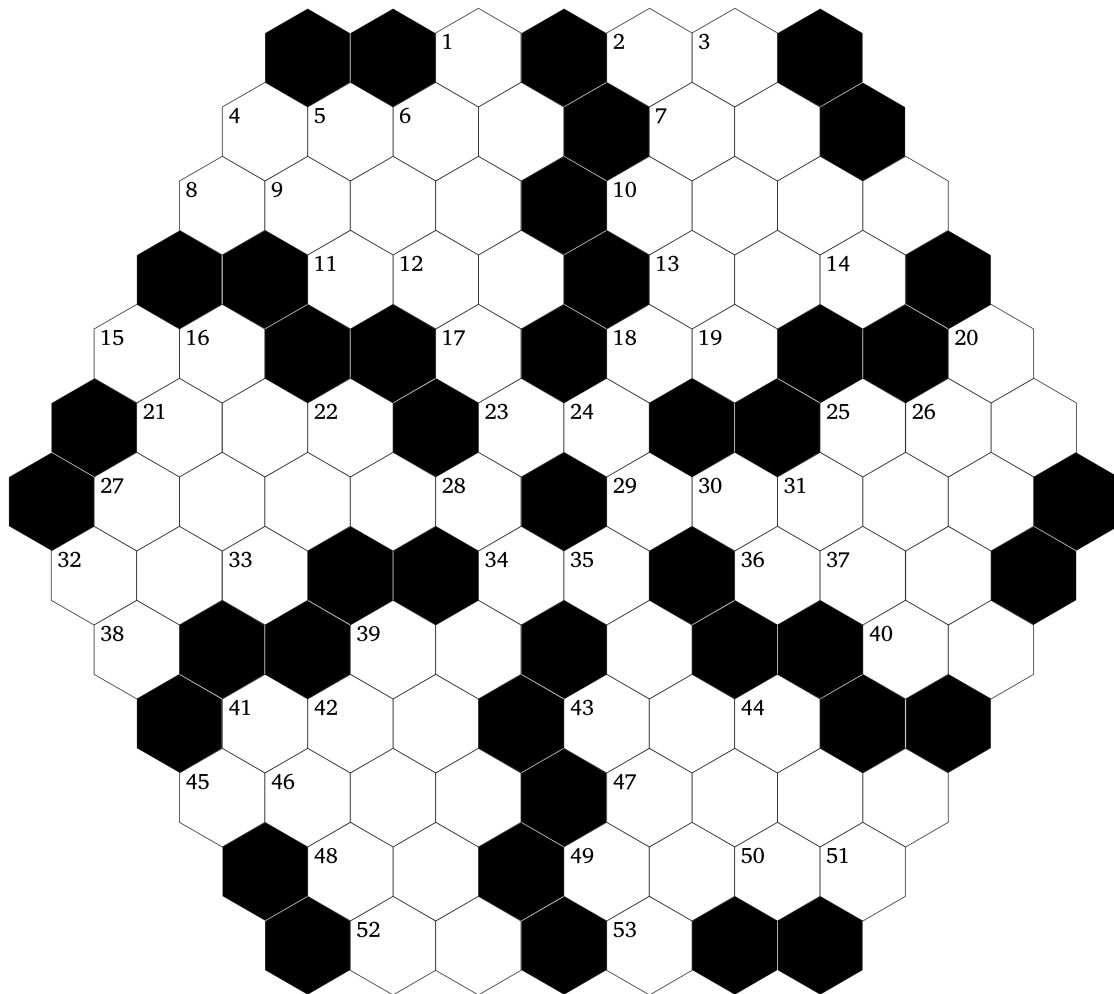
**Up (continued)**

- 28 Fifteen thousand sixty-nine more than 2 down  
29 Mean of 9 down and 3 down  
31 Mean of 10 across and 3 down  
33 49 across plus 5 across  
36 Mean of 35 down and 31 up  
40 Mean of 10 across and 3 down  
43 Fifty-three times 52 across  
45 Twenty-five times 16 down  
46 Nine times a prime number  
50 18 across plus 20 up  
53 Four times a prime number  
54 Three times a prime number  
55 Eight times a prime number  
56 A square

**Down (continued)**

- 16 35 down plus 26 up  
22 48 down divided by 52 across  
23 Eight hundred eighty-nine more than 6 down  
26 24 up minus 43 down  
30 Twenty-one times a prime number  
31 Mean of 19 up and 1 down  
33 Mean of 50 up and 43 up  
35 43 down minus 16 down  
37 Six times a prime number  
39 Three times a prime number  
42 7 across minus 9 down  
43 Mean of 29 up and 22 down  
48 8 across minus 51 down  
51 9 down plus 5 up

## Puzzle 17



### Across

- 2 48 across plus half of 23 across
- 4 8 across plus 39 across
- 7 Mean of 15 across and 28 down
- 8 Fifty times 21 across
- 10 25 across plus 32 up
- 11 Forty-one times 15 across
- 13 17 up plus 6 down
- 15 30 down divided by six
- 18 14 up minus 27 down
- 21 Half of 10 up, then subtract 16 down

### Up

- 8 24 down plus 7 across
- 9 28 up minus 14 up
- 10 24 down times 45 up
- 11 35 down divided by 49 down
- 12 Seventeen times a prime number
- 14 28 up minus 1 down
- 17 18 across plus 22 down
- 19 Mean of 12 up and 32 across
- 24 Last two digits are the same as 7 across
- 28 30 down minus 50 up

### Down

- 1 Same as 9 up
- 2 49 up plus 3 down
- 3 10 across minus 15 down
- 4 10 up minus 34 across
- 5 First two digits are the same as first two digits of 43 across
- 6 37 up minus 31 down
- 10 25 down minus half of 11 across
- 15 37 up minus 49 up
- 16 52 up plus 7 across
- 20 49 down plus 34 across

**Across (continued)**

- 23 49 up minus 34 across
- 25 51 up plus 2 across
- 27 Last two digits are the same as 20 down
- 29 43 up times 42 down
- 32 10 up plus 48 across
- 34 Mean of 52 across and 22 down
- 36 25 across plus 8 up
- 39 Mean of 24 down and 25 across
- 40 29 across divided by 42 down
- 41 Seventeen times 51 up
- 43 30 down plus 20 down
- 45 Five times a prime number
- 47 Three times a prime number
- 48 Mean of 24 down and 22 down
- 49 Half of 41 down, then subtract 41 across
- 52 A square

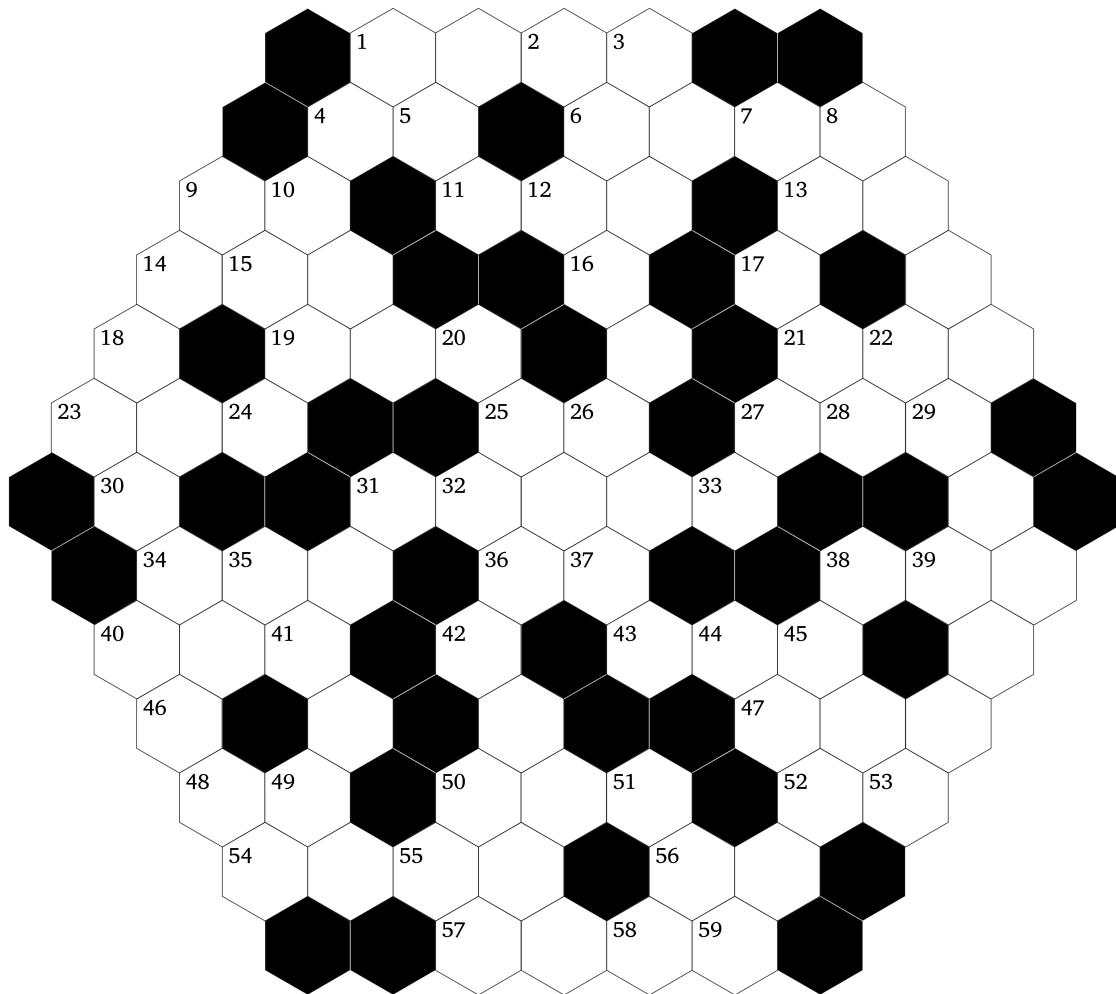
**Up (continued)**

- 32 Its digits total 45 up
- 33 Thirty-one times 15 across
- 35 18 across plus 27 down
- 36 Twenty-one times 49 down
- 37 10 down plus 36 across
- 38 Thirty-nine times 30 down
- 40 Ninety-seven times 26 down
- 43 40 up divided by ninety-seven
- 45 Same as 50 up
- 46 30 down plus 16 down
- 48 Sixty-two times a square
- 49 21 across minus 30 down
- 50 17 up minus 27 down
- 51 A cube
- 52 33 up minus 43 down
- 53 Last two digits are the same as last two digits of 43 across

**Down (continued)**

- 22 7 across reversed
- 24 43 up plus 28 down
- 25 7 across plus 37 up
- 26 Mean of 49 down and 18 across
- 27 Mean of 1 down and 48 across
- 28 Mean of 30 down and 7 across
- 30 28 up plus 45 up
- 31 16 down plus 34 across
- 32 14 up plus 48 across
- 35 9 up times 11 up
- 39 47 across minus 28 down
- 41 Twenty-six times a prime number
- 42 29 across divided by 26 down
- 43 38 up divided by 34 across
- 44 Fifty-three times 50 up
- 49 Same as 9 up

## Puzzle 18



### Across

- 1 57 across plus 41 up
- 4 A square
- 6 Thirty-four times 58 up
- 9 Mean of 36 across and 30 up
- 11 57 across divided by 55 down
- 13 49 down plus 18 down
- 14 A prime number
- 19 50 across plus half of 49 down
- 21 Mean of 28 up and 10 down
- 23 34 across minus 18 down
- 25 Mean of 43 across and 52 across

### Up

- 5 Mean of 30 up and 3 down
- 12 50 down minus 52 across
- 15 A prime number
- 16 54 up plus 52 across
- 17 Eleven times 32 up
- 23 Fifty-two times 7 down
- 24 12 down plus 43 across
- 28 Seven times 4 across
- 29 30 up minus 9 across
- 30 28 up minus 39 up
- 32 1 across minus 15 up

### Down

- 1 16 up plus 40 across
- 2 40 across plus 54 up
- 3 9 across minus 29 up
- 7 6 across divided by 43 across
- 8 9 down times 49 down
- 9 12 down minus 32 up
- 10 42 down plus 13 across
- 12 Mean of 38 across and 17 down
- 17 Mean of 2 down and 51 down
- 18 39 down minus 4 across
- 20 A prime number



**Across (continued)**

- 27 42 down minus 11 across
- 31 Its digits total 39 up
- 34 Seven times 13 across
- 36 9 across minus 29 up
  
- 38 10 down plus 33 up
- 40 Mean of 50 down and 30 up
- 43 24 up minus 12 up
- 47 23 across plus 54 up
- 48 18 down reversed
  
- 50 Mean of 21 across and 23 up
  
- 52 Mean of 39 up and 7 down
- 54 Twice a prime number
- 56 16 up minus 54 up

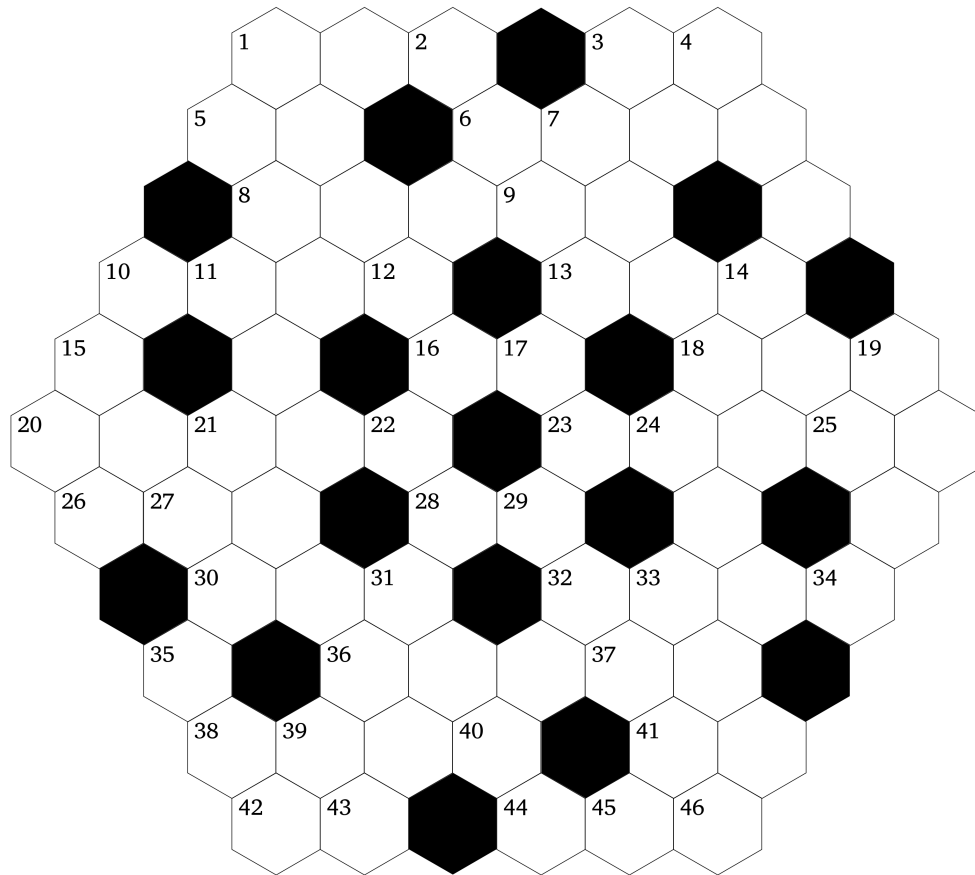
**Up (continued)**

- 33 Mean of 45 down and 52 across
- 37 40 up minus 7 down
- 39 51 down divided by 4 across
- 40 Twice the result of 28 up minus 48 across
- 41 Mean of 33 up and 13 across
- 46 Mean of 9 down and 57 up
- 47 Eight times a prime number
- 53 57 across plus 19 across
- 54 39 down plus 55 up
  
- 55 Mean of 51 down and 52 across
  
- 57 2 down plus 13 across
- 58 26 down reversed
- 59 A prime number

**Down (continued)**

- 22 Seventeen times a prime number
- 23 Twenty-one times 25 across
- 26 50 down minus 2 down
- 32 35 down minus 32 up
  
- 35 Mean of 23 across and 52 across
- 39 53 up minus 8 down
- 40 A prime number
- 42 50 down minus 55 up
- 44 Half of 1 down, then subtract 26 down
- 45 One hundred sixteen less than 2 down
- 49 13 across minus 37 up
- 50 46 up plus 40 up
- 51 10 down plus 49 down

## Puzzle 19



### Across

- 1 A prime number
- 3 4 down minus 43 up
- 5 34 up minus 40 up
- 6 A prime number
- 8 A prime number
- 10 Thirty-three times a prime number
- 13 Mean of 9 up and 4 down
- 16 18 across minus 20 up
- 18 Twice the result of 5 down minus 19 down
- 20 Mean of 1 down and 6 across
- 23 Seven thousand two hundred nine more than 17 up
- 26 Three times a prime number

### Up

- 5 10 across minus 32 across
- 9 17 down times 5 across
- 11 Twenty-seven times a prime number
- 12 A prime number
- 17 Five times a prime number
- 20 Three times a prime number
- 22 4 down divided by sixteen
- 24 Sixty-two times a square
- 25 Half of 5 down
- 26 42 across plus 29 up
- 27 Eight times a prime number
- 29 Mean of 39 down and 5 up

### Down

- 1 Three times a prime number
- 2 Six times a square
- 3 Mean of 5 across and 42 across
- 4 11 down minus 5 down
- 5 29 up plus 35 down
- 7 First two digits are the same as first two digits of 11 up
- 11 A square
- 14 Mean of 38 across and 3 down
- 15 A prime number
- 17 2 down divided by 28 across
- 19 A square
- 20 31 down divided by 24 down

**Across (continued)**

- 28 42 across minus 17 down
- 30 Mean of 20 up and 42 across
- 32 Twice the result of 24 up minus 9 up
- 36 7 down minus 23 across
- 38 Eighteen times a prime number
- 41 A square
- 42 3 down plus 22 up
- 44 40 up plus 18 across

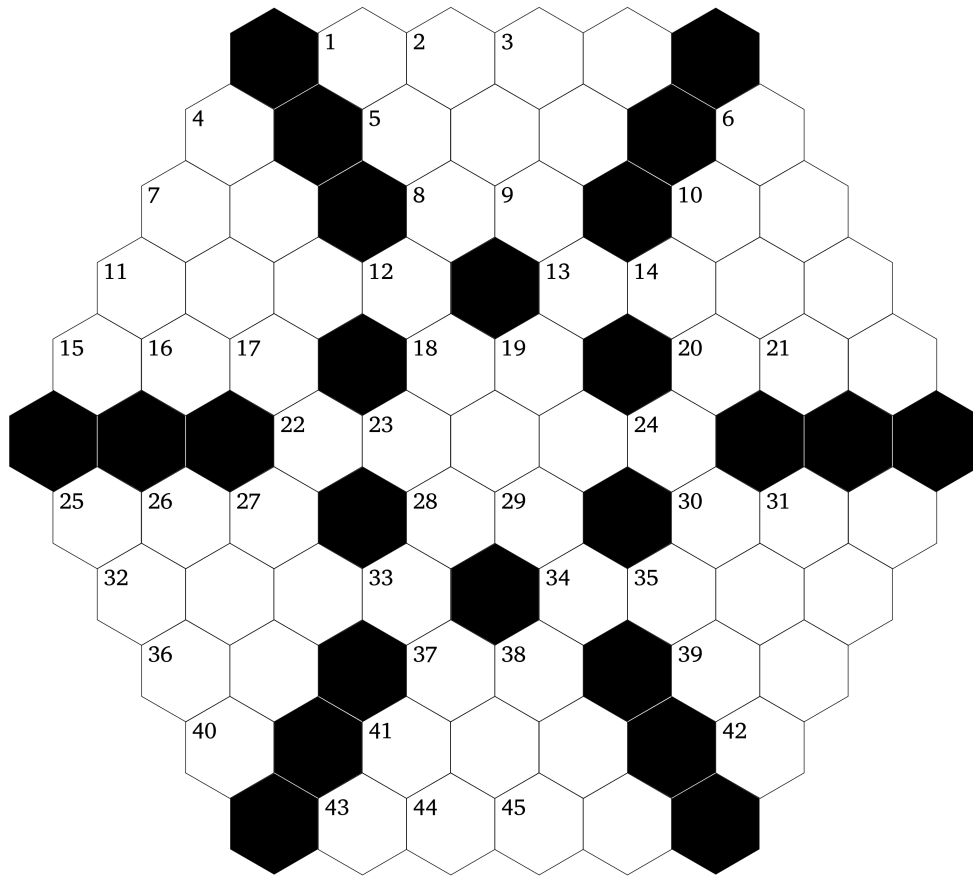
**Up (continued)**

- 34 Twice a prime number
- 35 Twice a prime number
- 37 Five times a prime number
- 40 5 up times 28 across
- 42 Last two digits are the same as 3 across
- 43 19 down plus 13 across
- 45 Mean of 10 across and 5 up
- 46 Seven times 5 up

**Down (continued)**

- 21 34 up times 46 up
- 22 30 across minus 26 up
- 24 35 down plus 16 across
- 29 Ninety-seven times a prime number
- 31 Nineteen times a prime number
- 33 11 down minus 5 up
- 35 Mean of 1 across and 3 across
- 39 Sum of digits in 26 across

## Puzzle 20



### Across

- 1 Twice a prime number
- 5 19 down plus 3 down
- 7 35 up minus 27 down
- 8 41 down plus 3 down
- 10 3 down minus 29 up
- 11 44 up minus 19 down
- 13 A prime number
- 15 38 down minus 18 across
- 18 26 down minus 27 down
- 20 9 up plus 7 across
- 22 Forty-six times a prime number
- 25 32 up plus 27 down

### Up

- 5 33 down divided by 4 down
- 9 Seven times 39 across
- 12 Forty-one times a prime number
- 14 Half of 39 up
- 15 Five hundred seventy-one less than 24 up
- 16 Eight times 23 down
- 17 42 up divided by sixty
- 21 3 down plus 5 up
- 23 Mean of 41 across and 32 up
- 24 Last two digits are the same as last two digits of 34 across
- 29 Sum of digits in 12 down
- 32 8 across minus 7 across

### Down

- 1 A prime number
- 2 A prime number
- 3 26 down minus half of 5 across
- 4 Rearranged digits of 14 up
- 6 Sixteen times a prime number
- 7 Twice the result of 6 down minus 27 down
- 10 11 across minus 24 down
- 11 Mean of 32 up and 8 across
- 12 Last two digits are the same as 17 up
- 14 Mean of 29 up and 31 down
- 19 Mean of 17 up and 36 across
- 23 Mean of 8 across and 18 across

**Across (continued)**

- 28 25 across minus 14 down
- 30 40 up plus 5 across
- 32 Eleven times a prime number
- 34 35 up times 17 up
- 36 14 down plus 10 across
- 37 34 across divided by 17 up
- 39 Mean of 23 down and 5 up
- 41 23 down plus 31 down
- 43 Sixty-three times 26 down

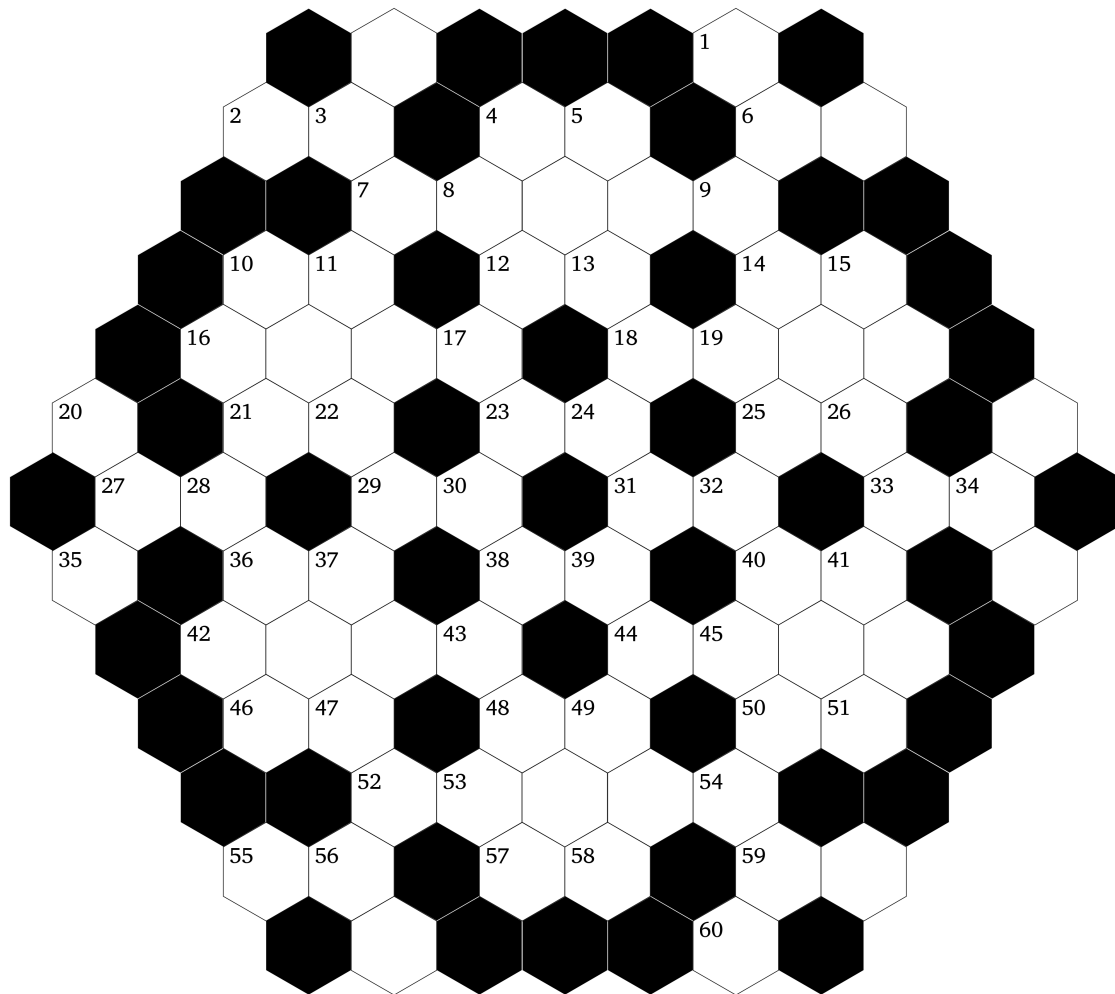
**Up (continued)**

- 33 Last three digits are the same as 35 down
- 35 Mean of 8 across and 36 across
- 36 Twice a prime number
- 39 Mean of 18 across and 1 down
- 40 10 down minus 5 up
- 42 Sixty-three times 29 up
- 43 Twice the result of 42 up minus 35 down
- 44 8 across times 11 down
- 45 Mean of 41 down and 8 across

**Down (continued)**

- 24 Twice a prime number
- 25 Twice the result of 13 across minus 9 up
- 26 19 down plus 23 down
- 27 Mean of 8 across and 5 up
- 31 Mean of 7 across and 29 up
- 33 Fifteen times a prime number
- 35 Thirty-seven times 14 down
- 38 Mean of 42 up and 27 down
- 41 7 across minus 5 up

## Puzzle 21



### Across

- 2 15 down minus 22 up  
 4 10 across plus 51 up  
 6 56 up minus 42 up  
 7 Ninety-one times a prime number  
 10 A square  
 12 8 up minus 24 down  
 14 46 across minus 12 across  
 16 Mean of 42 across and 34 down  
 18 Twenty-three times a prime number  
 21 14 across minus half of 12 across

### Up

- 3 Mean of 27 across and 26 up  
 8 6 across plus 54 down  
 9 Half of 42 up, then subtract 37 down  
 13 17 down minus 53 down  
 16 Twice the result of 30 up minus 40 across  
 17 Fifty-two times 48 across  
 19 42 up minus 43 up  
 22 8 down minus 48 across  
 24 Mean of 56 up and 24 down  
 26 Mean of 30 down and 39 up

### Down

- 1 48 across minus 3 down  
 3 2 across reversed  
 4 Last two digits are the same as 34 down  
 5 38 across plus 30 up  
 8 27 across plus half of 54 down  
 9 Mean of 7 across and 28 up  
 10 Three times a prime number  
 11 40 across plus 39 up  
 15 Mean of 33 across and 24 up  
 16 25 across reversed

**Across (continued)**

- 23 27 across plus 19 down
- 25 33 across plus 41 down
- 27 Mean of 43 up and 36 across
- 29 Twice the result of 1 down plus 6 across
- 31 30 up plus 1 down
- 33 43 up reversed
  
- 36 A square
- 38 43 up reversed
- 40 19 down minus 43 up
- 42 Twice a prime number
- 44 49 down times 47 up
- 46 24 up plus 60 up
- 48 49 down plus half of 56 down
- 50 Seven times 2 across
- 52 Twice a prime number
- 55 50 across minus 4 across
- 57 Mean of 47 up and 46 across
- 59 Mean of 53 down and 60 up

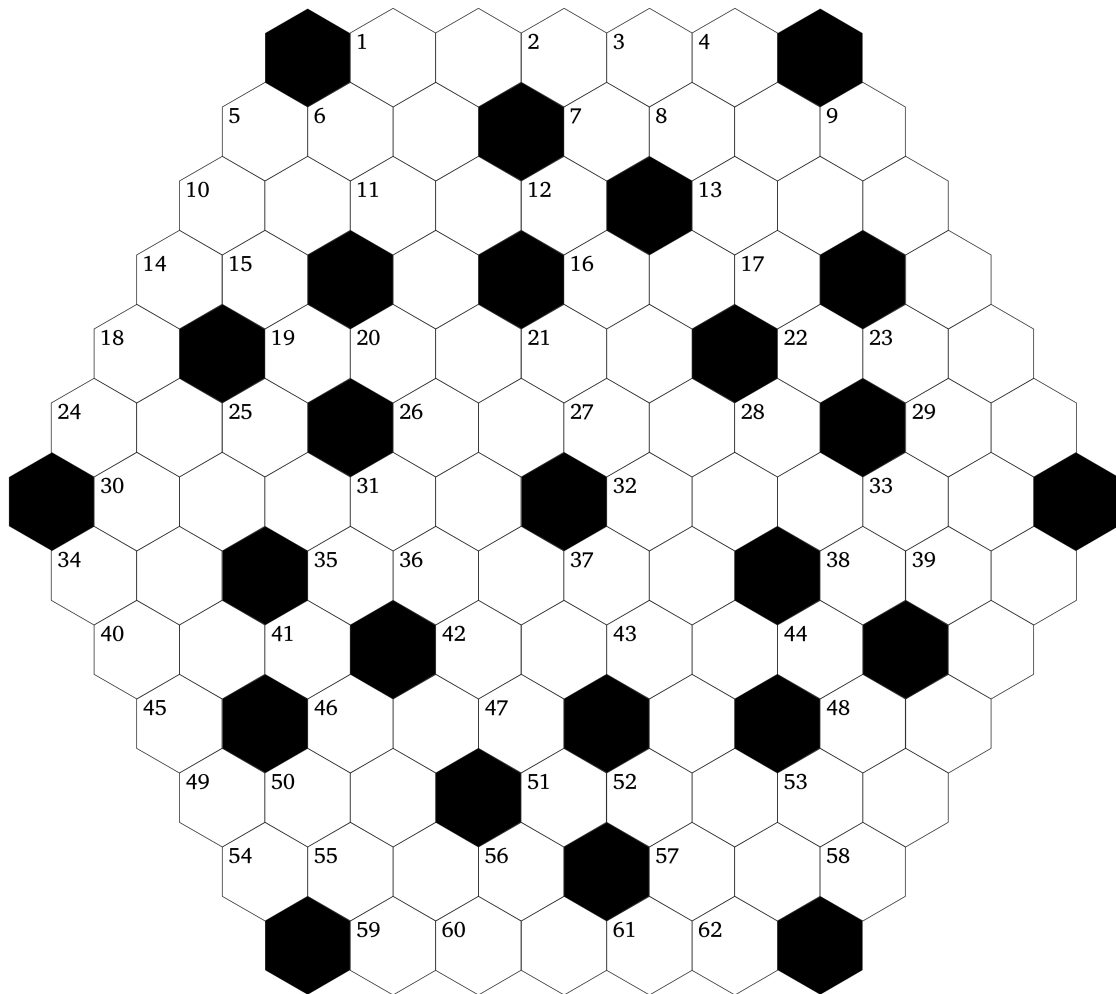
**Up (continued)**

- 28 A square
- 30 40 across plus 2 across
- 32 Seventy-four times a prime number
- 34 31 across minus 3 up
  
- 35 56 up minus half of 53 up
- 39 Half of 24 up, then subtract 38 across
- 42 Mean of 58 up and 50 across
- 43 Mean of 55 across and 39 up
- 45 46 across minus 20 down
- 46 53 down plus 32 down
- 47 8 down minus 34 down
- 51 26 up minus 2 across
- 53 A square
- 54 A prime number
- 56 Mean of 46 across and 41 down
- 57 Fifty-three times a prime number
- 58 44 across divided by 47 up
- 60 Mean of 53 up and 30 up

**Down (continued)**

- 17 31 across minus 43 up
- 19 42 down minus 26 up
- 20 Mean of 13 up and 22 up
- 24 Mean of 45 up and 45 down
  
- 28 Forty-one times a prime number
- 30 31 across minus 17 down
  
- 32 46 up minus 37 down
- 34 29 across minus 47 up
- 37 19 down minus 53 down
- 39 42 down minus 17 down
- 41 Mean of 37 down and 54 down
- 42 Mean of 16 up and 8 down
- 43 Its digits total 2 across
- 45 15 down plus 19 down
- 49 A square
- 53 50 across minus 56 up
- 54 Mean of 46 across and 47 up
- 56 19 up plus 3 up

## Puzzle 22



### Across

- 1 Twelve times a prime number
- 5 Eleven times 5 down
- 7 Mean of 15 up and 45 up
- 10 Four thousand forty-six less than 19 across
- 13 Mean of 45 up and 18 down
- 14 34 across minus 56 down
- 16 28 down minus 29 across
- 19 Five times a prime number
- 22 Mean of 20 up and 24 across

### Up

- 8 5 down plus 53 down
- 11 Thirty times 5 down
- 12 Mean of 34 up and 54 up
- 15 A prime number
- 17 A prime number
- 20 25 down minus 13 across
- 23 48 across minus 29 across
- 24 Forty-one times a prime number
- 27 Eight hundred eighty-five less than 34 down

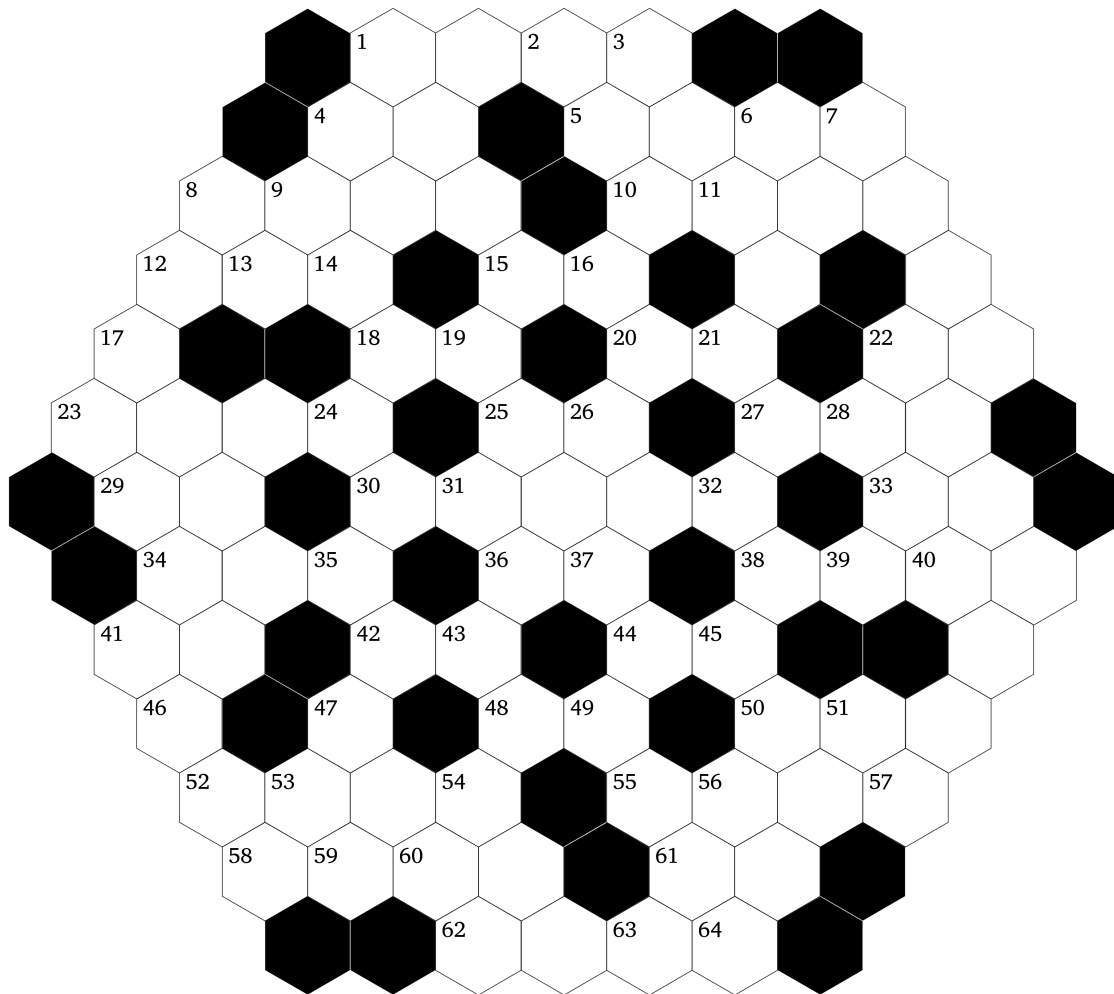
### Down

- 1 5 down plus 34 across
- 2 40 across divided by 29 across
- 3 Twice a prime number
- 4 12 up minus 39 up
- 5 4 down divided by 53 down
- 6 Twenty-seven times a prime number
- 9 Six hundred six less than 27 up
- 10 A prime number
- 12 Fourteen times a prime number



<b>Across (continued)</b>	<b>Up (continued)</b>	<b>Down (continued)</b>
24 Twenty-three times a square	34 29 across plus 54 up	18 Three times a prime number
26 Last two digits are the same as 45 up	36 Seven thousand four hundred ninety-five more than 30 across	20 Seventy times a prime number
29 Sum of digits in 9 down	39 Twice the result of 22 across minus 50 down	21 24 up minus half of 27 up
30 A prime number	40 Mean of 12 down and 58 up	23 Twelve times 46 across
32 One thousand thirty-nine less than 35 across	41 Half of 31 down, then subtract 5 across	24 Last two digits are the same as 45 up
34 Twice the result of 33 down minus 17 up	43 Forty-four times a prime number	25 A prime number
35 Two thousand eight hundred nineteen less than 47 up	44 Ten thousand six less than 34 down	28 34 up minus 49 across
38 60 up plus 11 up	45 25 down minus 52 down	31 Twelve times a prime number
40 28 down minus 8 up	47 Sixty-one times 38 across	33 Twenty-two times 14 across
42 Fifty-eight times a prime number	52 A prime number	34 Thirty-seven times a prime number
46 Mean of 5 down and 33 down	54 8 up plus 44 down	37 A palindrome
48 A square	55 Seven times a prime number	41 Consecutive digits unordered
49 54 up minus 16 across	58 Nine thousand four hundred eighty-eight less than 43 up	44 Twenty times 53 down
51 Eighty times a prime number	59 56 down reversed	50 Mean of 4 down and 60 up
54 1 across minus half of 38 across	60 Mean of 40 across and 53 down	52 Twice the result of 37 down minus 6 down
57 Mean of 12 up and 44 down	61 Rearranged digits of 57 across	53 20 up minus 46 across
59 Twice the result of 20 down plus 24 across	62 Last two digits are the same as last two digits of 12 up	56 59 up reversed

## Puzzle 23



### Across

- 1 39 up minus 29 up  
 4 Mean of 44 across and 16 down  
 5 Twice a prime number  
 8 Mean of 23 down and 59 up  
 10 Nineteen times 24 down  
 12 54 down plus 33 across  
 15 24 down minus 21 down  
 18 38 across divided by 48 across  
 20 Mean of 31 down and 32 up  
 22 Mean of 62 up and 45 up  
 23 Twenty-one times a prime number

### Up

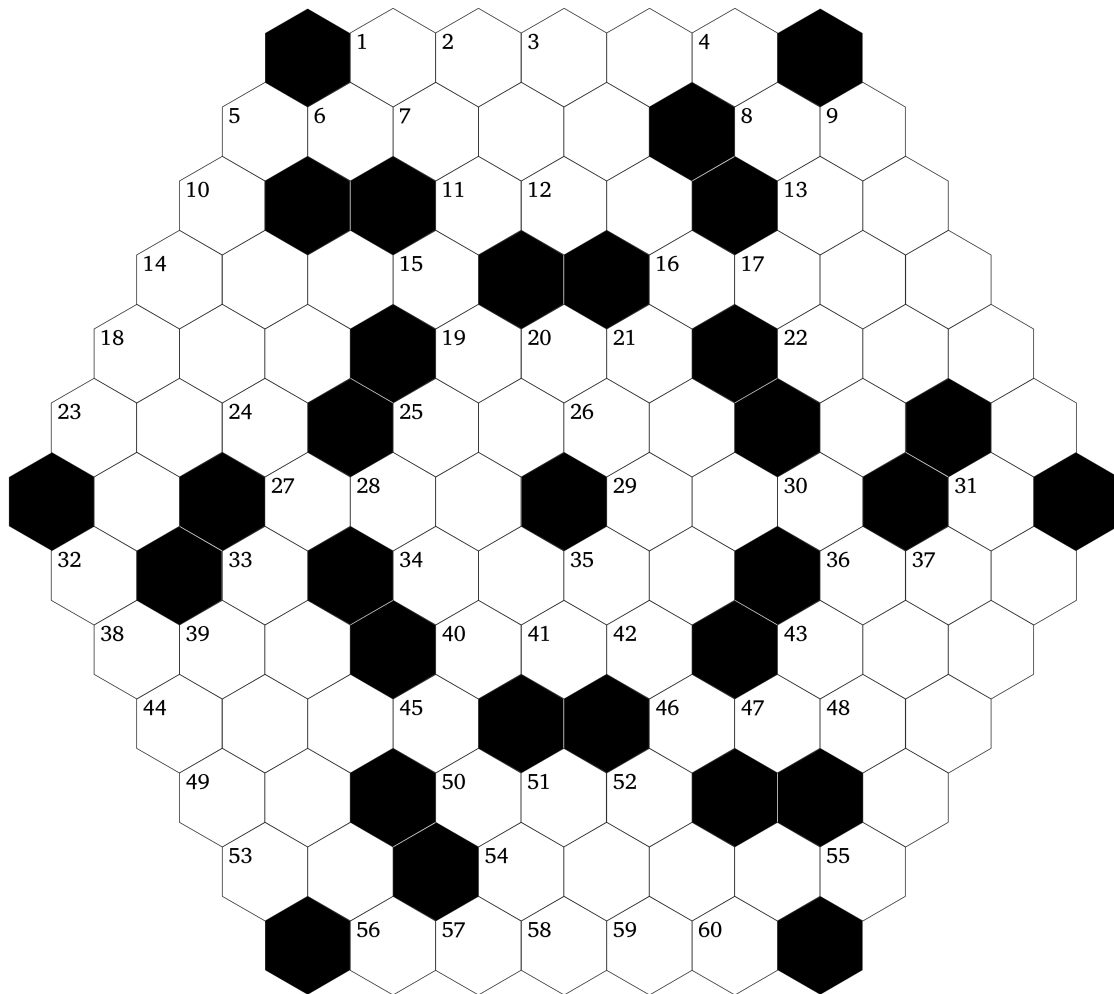
- 5 A square  
 11 15 across plus 29 across  
 13 Fifty-one times 41 across  
 14 Eighty-four times 36 across  
 16 37 up plus 15 across  
 19 36 across plus 41 across  
 21 19 down divided by 29 up  
 23 Twice a prime number  
 24 25 across plus 59 up  
 28 26 down times 22 across  
 29 Mean of 61 across and 4 down

### Down

- 1 39 up minus 4 down  
 2 3 down minus 39 up  
 3 31 up times 41 across  
 4 Mean of 26 down and 43 down  
 6 45 up minus 8 down  
 7 Seventeen times a prime number  
 8 1 across divided by 22 across  
 9 Twice the result of 34 across plus 24 down  
 16 55 across minus 49 down  
 17 Mean of 64 up and 52 across  
 19 Fifty-two times a prime number

<b>Across (continued)</b>	<b>Up (continued)</b>	<b>Down (continued)</b>
25 A square	31 46 up minus 35 down	21 24 down minus 56 down
27 Twice the result of 1 down minus 28 up	32 35 up minus 56 down	22 58 across minus half of 57 up
29 A square	35 56 down plus 43 down	23 Twenty-three times a prime number
30 First two digits are the same as first two digits of 23 down	37 40 up minus 4 across	24 29 up plus 18 across
33 48 across minus 31 up	39 Twenty-seven times a prime number	26 12 across minus 54 down
34 Twice a prime number	40 41 up divided by ninety-three	28 One thousand thirty-two more than 58 up
36 Sum of digits in 30 across	41 Twice the result of 47 down minus 45 down	31 45 up minus 15 across
38 Rearranged digits of 58 up	43 Six times 21 up	32 16 up minus 19 up
41 Mean of 46 up and 61 across	45 60 up minus 5 up	35 6 down plus 20 across
42 16 down plus 4 across	46 45 up plus 44 across	41 5 across minus 10 across
44 3 down divided by 41 across	49 35 up minus 20 across	43 27 across divided by 4 across
48 43 down plus 31 down	57 Mean of 23 up and 55 across	45 50 across plus 32 up
50 Forty-three times 4 across	58 62 across plus 23 across	47 Mean of 5 across and 6 down
52 Four times a prime number	59 56 down minus 48 across	49 Sixty-two times a prime number
55 Twice a prime number	60 25 across plus 35 down	51 25 across minus 59 up
58 41 down minus 48 across	62 61 across minus 4 across	53 8 down minus 16 down
61 Mean of 59 up and 22 across	63 Eight times a prime number	54 9 down minus 16 down
62 33 across times 45 up	64 49 up plus 22 down	56 11 up minus 36 across

## Puzzle 24



### Across

- 1 Three times a square
- 5 39 down plus 40 across
- 8 38 across minus 28 up
- 11 24 up plus 49 up
- 13 Mean of 59 up and 8 across
- 14 42 up plus 14 down
- 16 Fifteen times a prime number
  
- 18 Mean of 22 up and 33 down
- 19 38 across plus 37 down
- 22 42 up plus 18 down
- 23 Twice the result of 44 up minus 14 across

### Up

- 6 2 down minus 57 up
- 7 17 down minus 27 across
- 12 30 down minus 2 down
- 15 Sixty-one times a prime number
- 17 25 down divided by twenty-three
- 22 47 up plus 31 down
- 23 First two digits are the same as first two digits of 17 down
- 24 Fourteen times 13 across
- 26 Mean of 60 up and 53 up
- 28 23 down plus 33 down
- 30 60 up times 31 down

### Down

- 1 Forty-one times 49 across
- 2 43 across minus 50 across
- 3 A prime number
- 4 Fifty-three times a prime number
- 9 32 up minus 20 down
- 10 12 up plus 60 up
- 14 One thousand five hundred thirty-six less than 15 up
- 15 22 across plus 59 up
- 17 15 down minus 10 down
- 18 Nine times 23 down
- 20 Four times a prime number

**Across (continued)**

- 25 Seven times a prime number
- 27 17 down minus 49 across
- 29 23 down plus 36 across
  
- 34 3 down plus half of 43 down
- 36 Mean of 26 up and 60 up
- 38 45 up plus 52 down
- 40 31 down plus 2 down
  
- 43 Mean of 18 down and 30 down
  
- 44 A prime number
- 46 Sixteen times a prime number
- 49 Same as 7 up
  
- 50 23 across plus 59 up
- 53 Mean of 8 across and 51 down
  
- 54 Twice a prime number
- 56 A prime number

**Up (continued)**

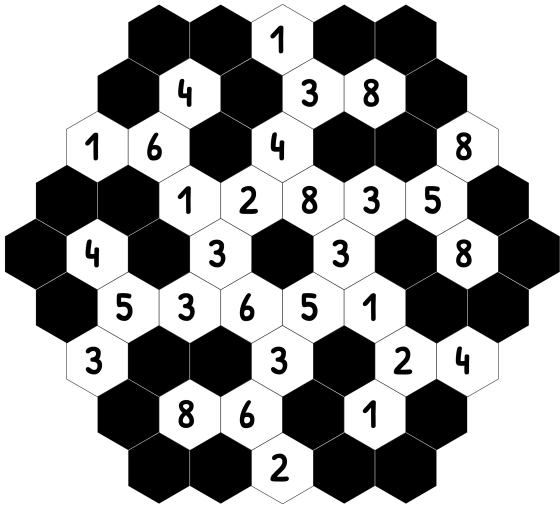
- 32 A prime number
- 34 Eight times a prime number
- 41 Twenty-one times a prime number
  
- 42 Mean of 35 down and 15 down
- 44 Seven hundred six more than 58 up
- 45 57 up reversed
- 47 59 up times 37 down
  
- 48 Twenty-two thousand four hundred fifty-one less than 5 across
- 49 Rearranged digits of 51 down
- 53 38 across minus 13 across
- 55 A prime number
  
- 57 45 up reversed
- 58 One thousand two hundred fifty-nine more than 34 up
- 59 53 across minus 37 down
- 60 25 down minus half of 46 across

**Down (continued)**

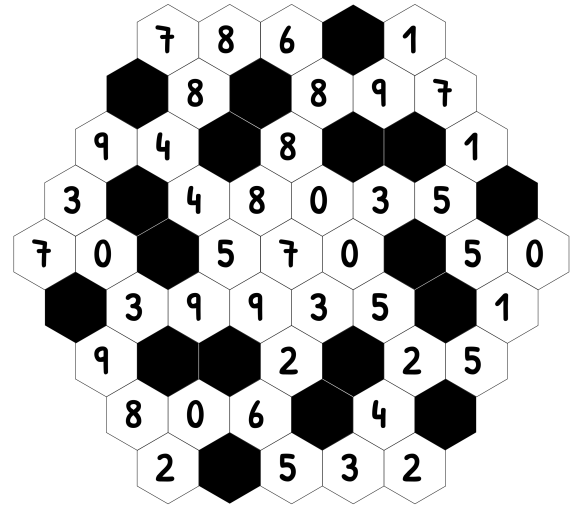
- 21 53 across plus 57 up
- 23 Two-thirds of 7 up
- 25 Last two digits are the same as last two digits of 53 up
- 28 42 up minus 59 up
- 30 Twenty-two times a prime number
- 31 17 up minus 49 up
- 32 Twice the result of 4 down minus 22 across
- 33 47 up minus 17 up
  
- 35 18 across minus 51 down
- 37 1 across divided by 42 up
- 39 Last three digits are the same as 11 across
- 43 52 down minus 60 up
- 45 28 up plus half of 21 down
  
- 51 A square
- 52 Mean of 53 up and 1 down

# Solutions

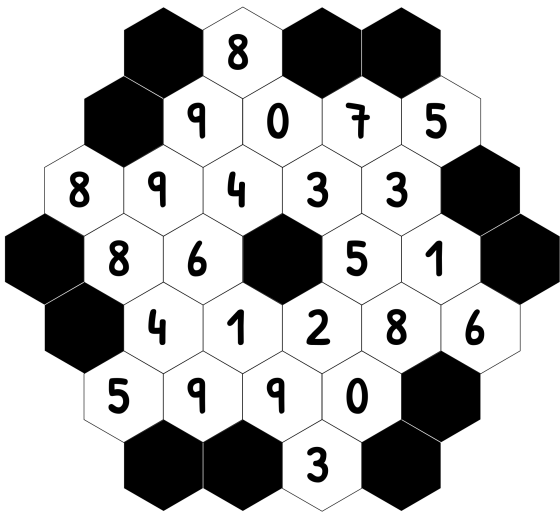
Puzzle 1



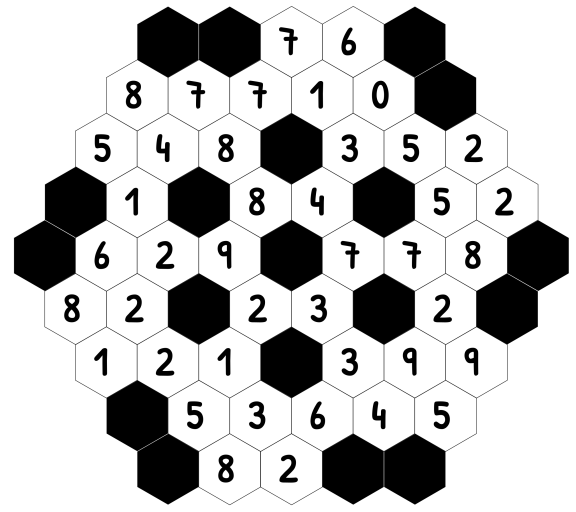
Puzzle 2



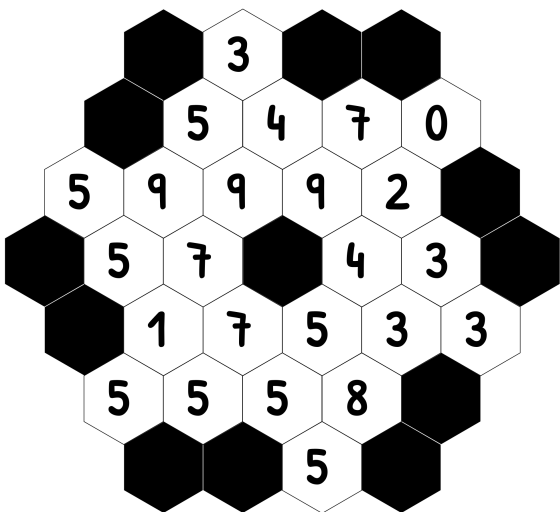
Puzzle 3



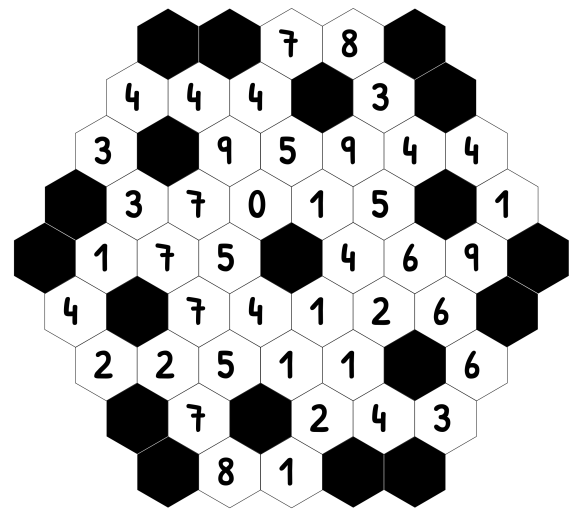
Puzzle 4



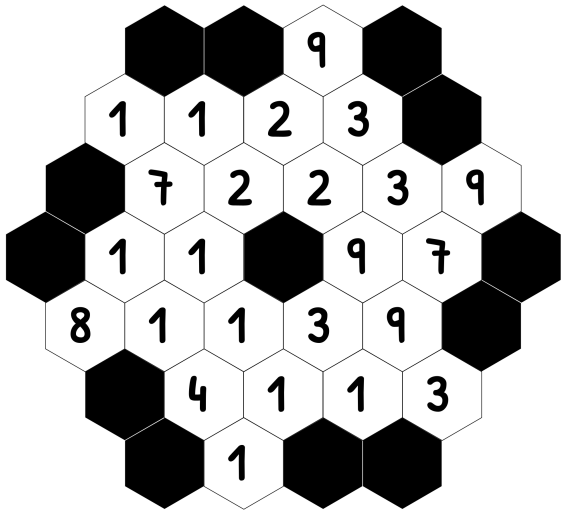
Puzzle 5



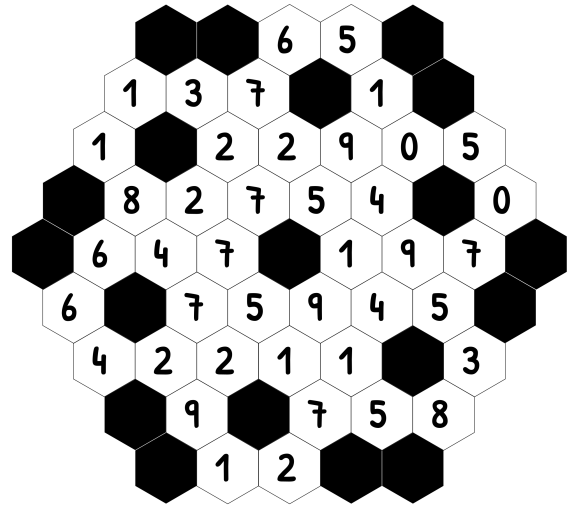
Puzzle 6



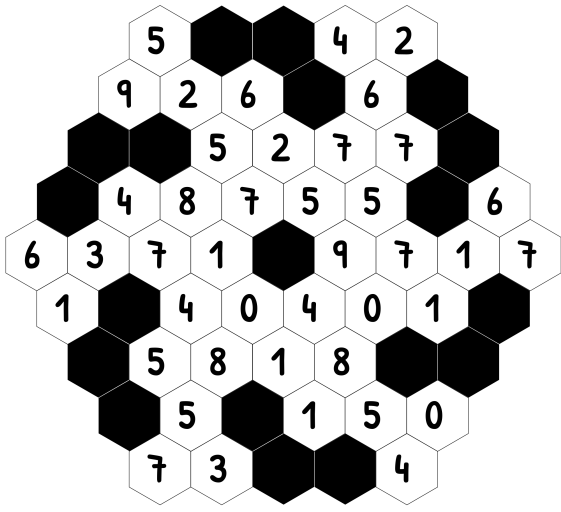
Puzzle 7



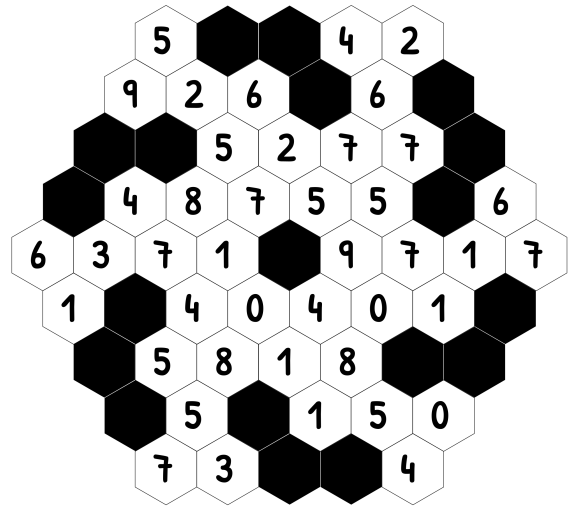
Puzzle 8



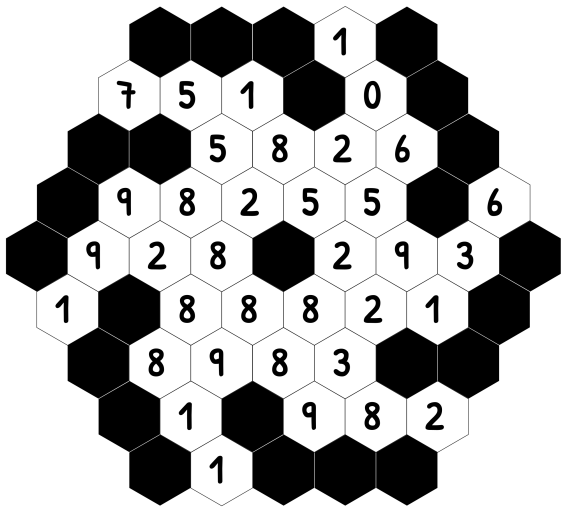
Puzzle 9



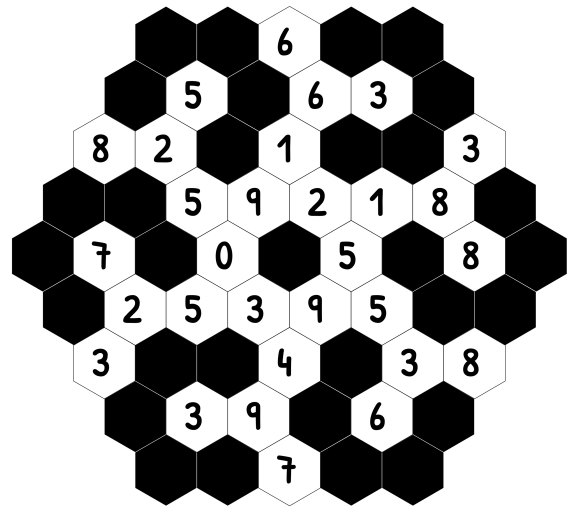
Puzzle 10



Puzzle 11

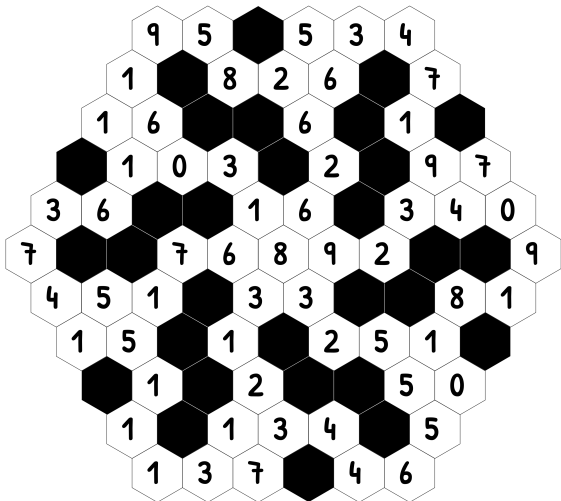


Puzzle 12

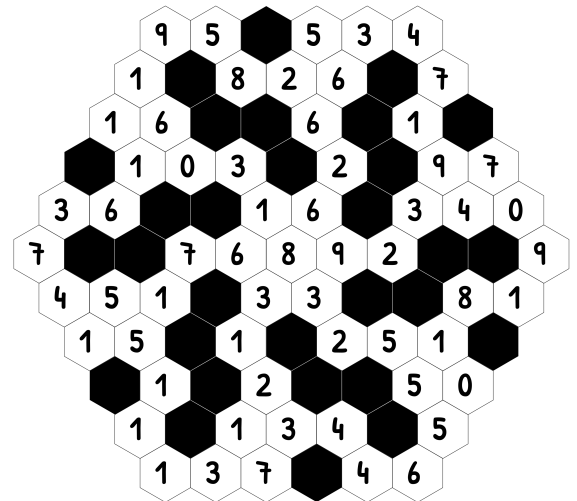




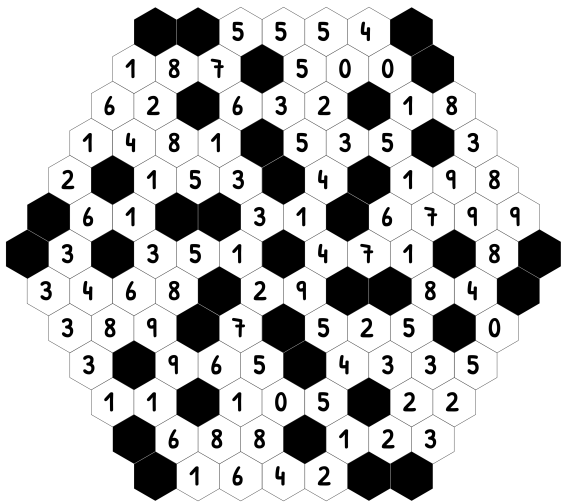
Puzzle 13



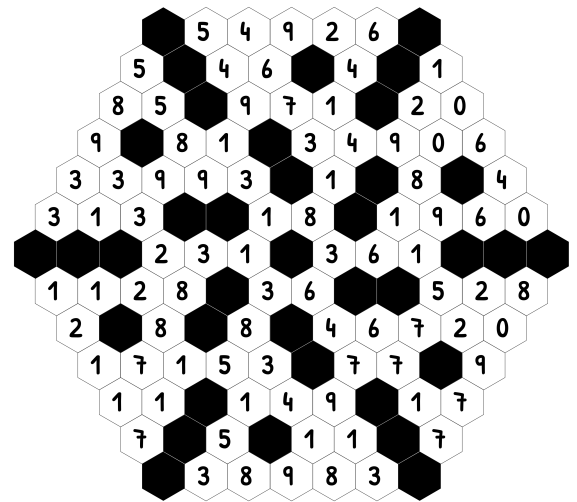
Puzzle 14



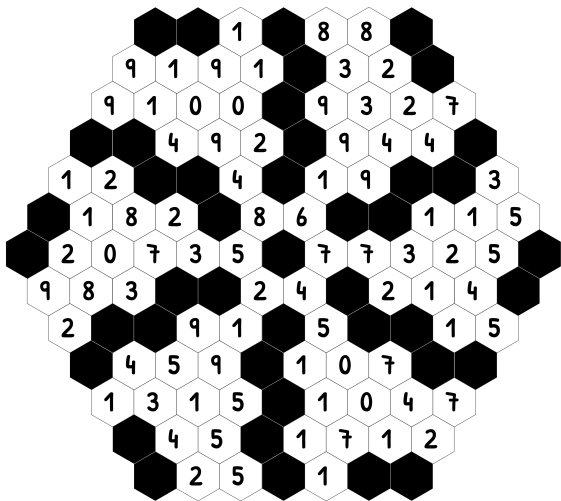
Puzzle 15



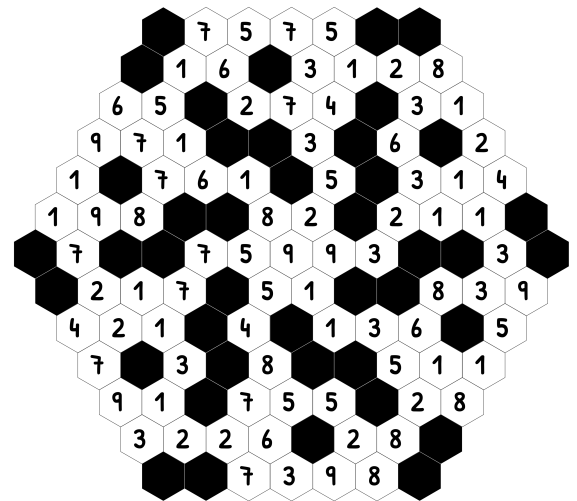
Puzzle 16



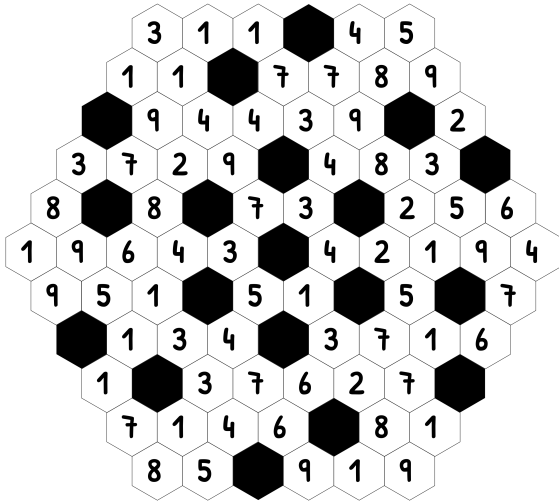
Puzzle 17



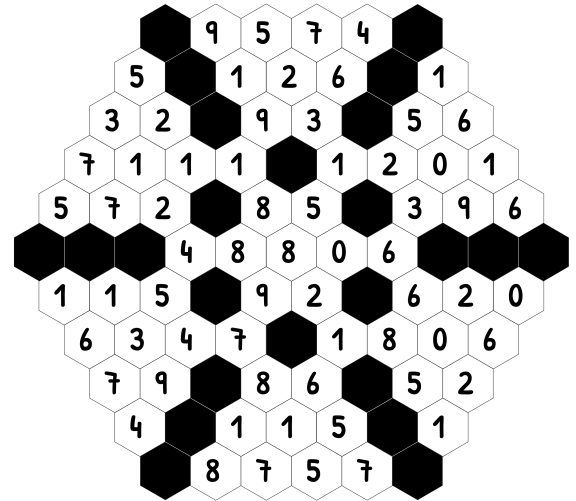
Puzzle 18



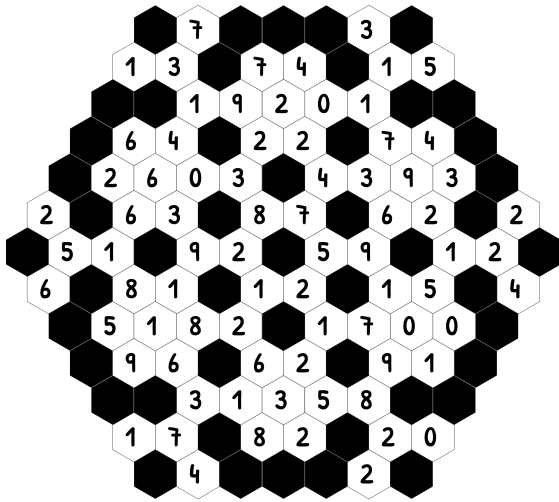
Puzzle 19



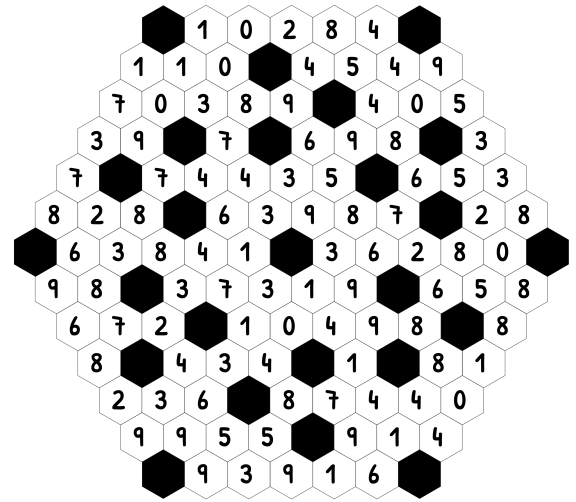
Puzzle 20



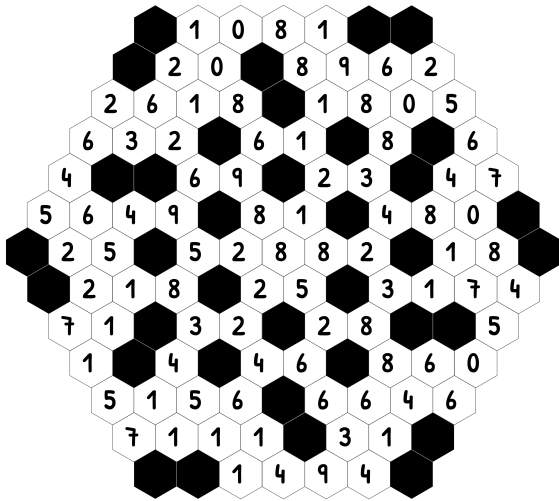
Puzzle 21



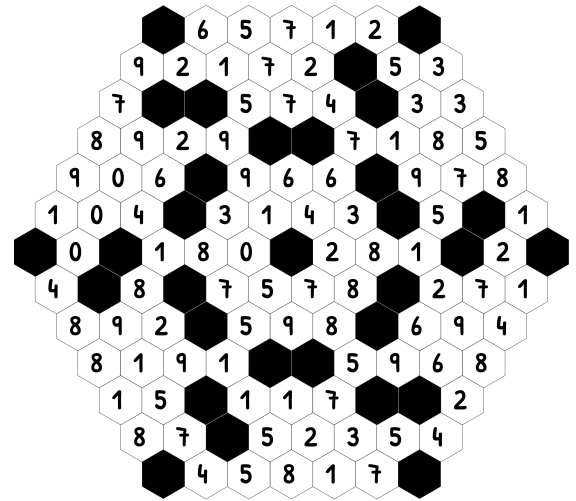
Puzzle 22



Puzzle 23

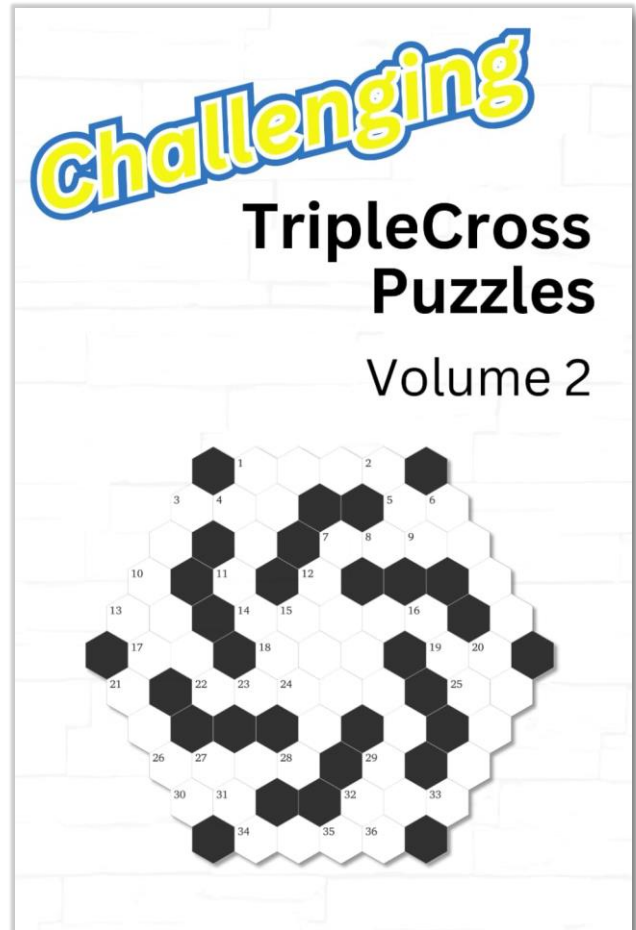
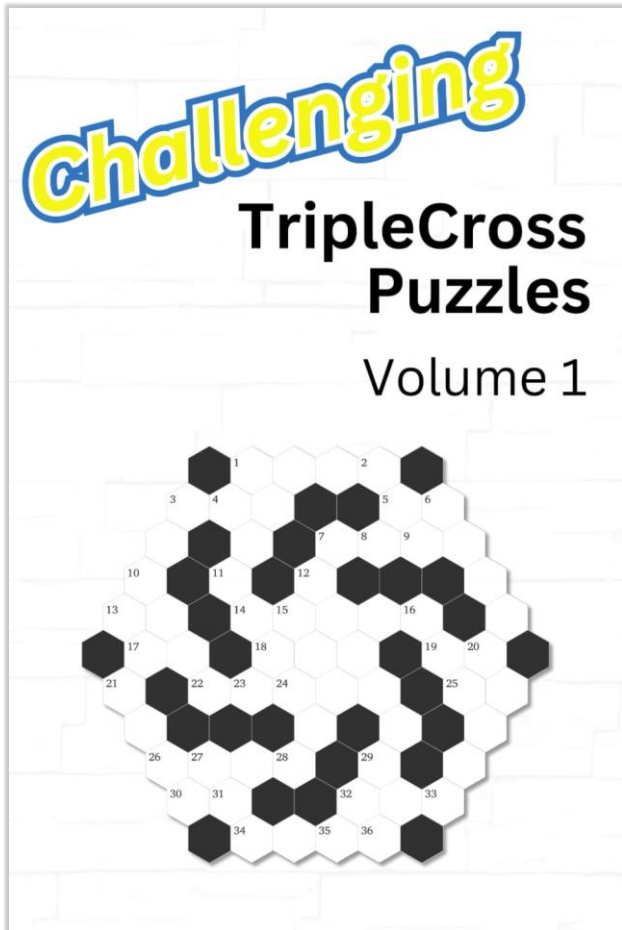


Puzzle 24



# Want More Puzzles?

Check out these books on Amazon:



# Acknowledgements

This book could not be possible without a lot of help, especially from the following:

Jim Bumgardner (krazydad) whose excellent site <http://krazydad.com> provided many hours of enjoyment and inspired me to create puzzles of my own. He has also been very generous providing tips and support.

Yochanan Dvir whose cross-figure puzzles formed the reference material for the puzzles.

Jared McComb (bosuonparedo) who started me down the path to create the hexagonal puzzles.

Phil Bordelon (Sunfall) who suggested the name TripleCross.

Dave Millar (Taco Dave) who suggested I create books.

All the users on the krazydad discord server who tested the puzzles and gave feedback.

Norma for her suggestions and editing help.

Sora Sagano for the Aileron font.

Charis SIL font Copyright (c) 1997-2022 SIL International (<http://www.sil.org/>) with Reserved Font Names "Charis" and "SIL". Licensed under the SIL Open Font License, Version 1.1, available at <http://scripts.sil.org/OFL>

Patrick Hand font Copyright (c) 2010-2012 Patrick Wagesreiter ([mail@patrickwagesreiter.at](mailto:mail@patrickwagesreiter.at)), licensed under the SIL Open Font License, Version 1.1, available at <http://scripts.sil.org/OFL>

UXWing.com for the star icons.

All trademarks and copyrights are the property of their respective owners.