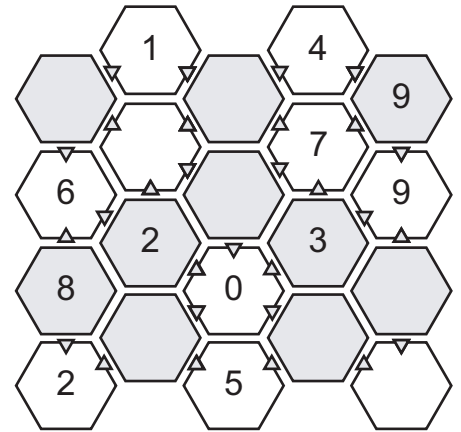


Fill the puzzle with the numbers 0 to 9 so that they appear once in each white and grey cell.

Each white cell must equal the total of the surrounding grey cells- but only the last digit of the total is used.

Now we know the rules, let's try and solve this puzzle ...



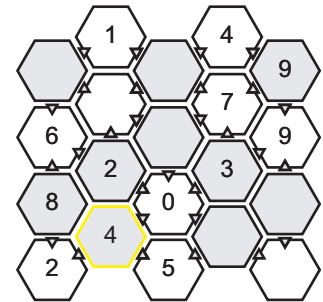
A Scan the puzzle to find any empty white cells where all the surrounding grey cells are filled in.

There are none.

Look at the white 2 in the bottom left-hand corner though, it has two neighbouring grey cells and one of them already contains an 8.

We can conclude that the empty grey cell must contain the number 4.

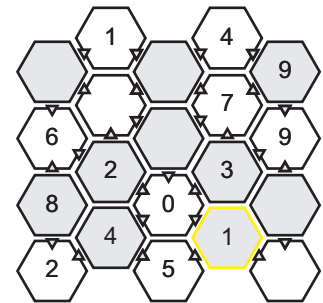
$8+4 = 12$... using the last digit we get the value of the white cell ... 2.



B Having placed the grey 4 we can now tackle the white 5 at the bottom of the puzzle in the same way.

The empty grey cell to the right of the white 5 must contain the number 1.

$4+1 = 5$.

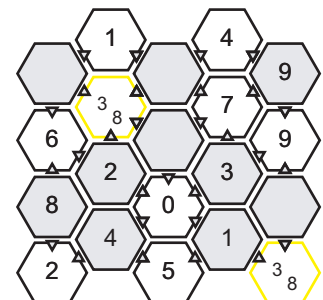


C You can actually continue to use this simple technique to complete this puzzle.

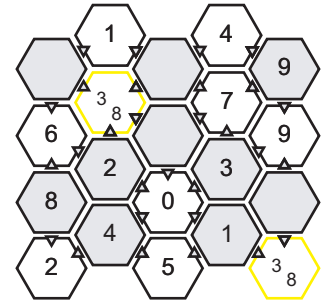
But let's use a different technique to fill in the remaining white cells.

There are only two numbers left that can fit into white cells, these are 3 and 8 (the other numbers from 0 to 9 have already been used).

In the next step we will determine which number goes where.



Solving puzzle continued ...

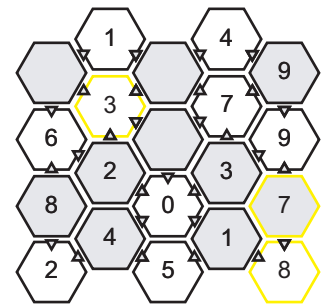


D Take a look at the white cell in the bottom right. This cell can be filled in with either the value 3 or 8.

There are two surrounding grey cells; one of these is empty and the other contains the number 1.

Since the grey cells must add up to the white cell, we can deduce that the empty grey cell must contain either the number 2 or 7 ...

... but look! The number 2 is already present in a grey cell. We can therefore fill in both the numbers 7 and 8 in the bottom right corner. Then we can fill in the number 3 in the final white cell.



E We only have three grey cells to fill in now. These must contain the numbers 0, 5 and 6.

Let's take the most difficult one, the empty grey cell above the white 0.

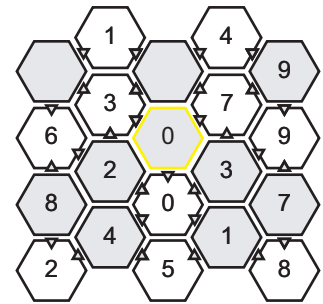
This cell already has four out of the five surrounding grey cells filled in. The sum so far is:

$$1+2+3+4+? = 0$$

$$10+? = 0$$

$$10+0=10=0 \text{ (remember that we only use the final digit)}$$

We can therefore fill in the grey cell as a 0.



F It should be easy now to complete the puzzle by placing the 6 in the top left corner and the 5 in the final grey cell.

This completes the following sums - make sure you can find them:

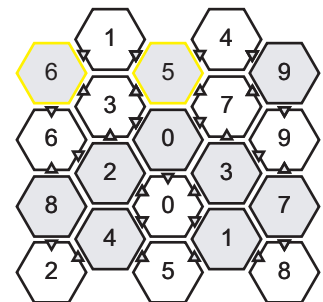
$$5+6=11=1$$

$$2+0+6+5=13=3$$

$$2+8+6=16=6$$

$$5+9=14=4$$

$$0+3+9+5=17=7$$



Congratulations, you have just solved your first Modula.

Please visit <http://www.vexuspuzzle.com> if you wish to try more Modula puzzles.