Kakuro

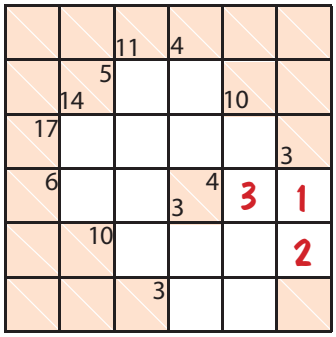
Fill the grid so that each block adds up to the total in the box above or to the left of it. You can only use the digits 1-9 and you must not use the same digit twice in a block. (The same digit may occur more than once in a row or column, but it must be in a separate block.)

Let's walk through a puzzle, touching on the general principles.

In the beginning, look out for two things:
a) sums that are made up of Unique Digit Answers (UDAs). See the table on the facing page.
b) sums that are comprised of few cells.

Step One

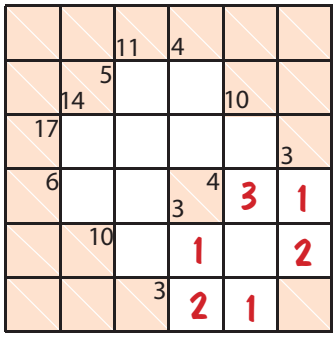
On the right-hand side of the puzzle are two intersecting sums which are made up of two cells. The horizontal sum must add up to **four**. It can't be 2 and 2, because you can't repeat a digit in a sum, so it must be 1 and 3. But what's the order?



The vertical sum must add up to **three**, so is made up of 1 and 2. The only digit in both answers is a 1, so this must go in the intersecting cell - and this determines the positions of the 2 and 3.

Step Two

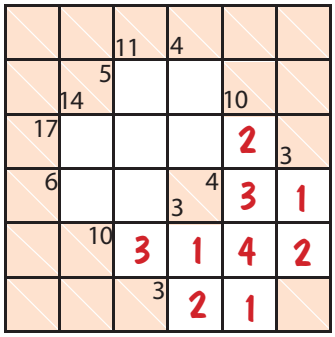
There is a 2 on the horizontal line that must add up to **ten**. That line is intersected by a sum that must add up to **three**. We can't have another 2 in the horizontal line.



As the only combination for the **three** sum is 2 and 1, this means the intersecting cell must be a 1. The horizontal line beneath it also adds up to **three** and can be completed, too.

Step Three

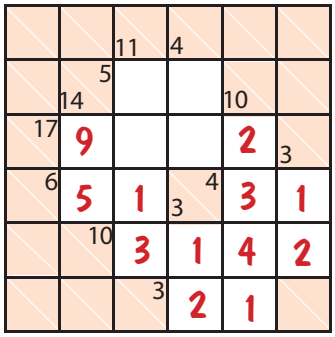
On the horizontal line that totals **ten**, we have a 1 and a 2. The remaining two cells add up to seven. There are three possible combinations: 1 and 6, 2 and 5, 3 and 4. We already have a 1 and 2 on the line, so the only available pair is 3 and 4.



The empty cell between the 1 and the 2 intersects with a sum which already contains a 3, so this cell must hold the 4. This means we can complete both the horizontal **ten** sum and the intersecting **ten** sum.

Step Four

On the left-hand side are two more sums that are made up of two cells: the vertical sum is **fourteen** and the intersecting horizontal sum is **six**.

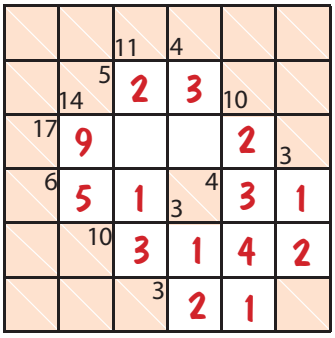


The only combinations for **fourteen** are 9 and 5, and 8 and 6. The only possible digit that can intersect with the **six** sum is the 5.

Once you've placed the 5, the other digits that make up the sums can be fitted in.

Step Five

The horizontal line at the top of the puzzle has a **five** sum. The only two combinations are 1 and 4, and 2 and 3. As 1 and 3 appear already in the intersecting **eleven** sum, the only possible digits are 2 and 4. If it was a 4, the remaining digit in the **eleven** sum would be a 3, but there's a 3 in that sum already, so the horizontal sum must be 2 and 3, in that order.



To finish the puzzle: 1 completes the vertical **four** sum and a 5 completes the vertical **eleven** sum.

Unique Digit Answers

For certain sums, only one combination of digits is possible. Here's a useful table of Unique Digit Answers. Look out for these in the puzzles that follow. They'll be a great help to you.

Sum	Numbers
3 →	1 • 2
4 →	1 • 3
16 →	7 • 9
17 →	8 • 9
6 →	1 • 2 • 3
7 →	1 • 2 • 4
23 →	6 • 8 • 9
24 →	7 • 8 • 9
10 →	1 • 2 • 3 • 4
11 →	1 • 2 • 3 • 5
29 →	5 • 7 • 8 • 9
30 →	6 • 7 • 8 • 9
15 →	1 • 2 • 3 • 4 • 5
16 →	1 • 2 • 3 • 4 • 6
34 →	4 • 6 • 7 • 8 • 9
35 →	5 • 6 • 7 • 8 • 9
21 →	1 • 2 • 3 • 4 • 5 • 6
22 →	1 • 2 • 3 • 4 • 5 • 7
38 →	3 • 5 • 6 • 7 • 8 • 9
39 →	4 • 5 • 6 • 7 • 8 • 9
28 →	1 • 2 • 3 • 4 • 5 • 6 • 7
29 →	1 • 2 • 3 • 4 • 5 • 6 • 8
41 →	2 • 4 • 5 • 6 • 7 • 8 • 9
42 →	3 • 4 • 5 • 6 • 7 • 8 • 9
36 →	1 • 2 • 3 • 4 • 5 • 6 • 7 • 8
37 →	1 • 2 • 3 • 4 • 5 • 6 • 7 • 9
38 →	1 • 2 • 3 • 4 • 5 • 6 • 8 • 9
39 →	1 • 2 • 3 • 4 • 5 • 7 • 8 • 9
40 →	1 • 2 • 3 • 4 • 6 • 7 • 8 • 9
41 →	1 • 2 • 3 • 5 • 6 • 7 • 8 • 9
42 →	1 • 2 • 4 • 5 • 6 • 7 • 8 • 9
43 →	1 • 3 • 4 • 5 • 6 • 7 • 8 • 9
44 →	2 • 3 • 4 • 5 • 6 • 7 • 8 • 9
45 →	1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9