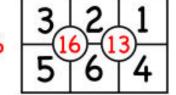
## Puzzle of the Week **Sujiko Puzzle – 1**

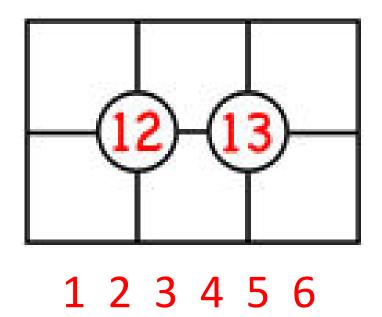
In this small 2 by 3 Sujiko puzzle, use each of the numbers from 1 to 6 once in the six squares. The number in each circle must be the sum of the four squares that surround it.

3+2+5+6 = 16



2+1+6+4 = 13

THE CHALLENGE: Fill in this Sujiko puzzle.



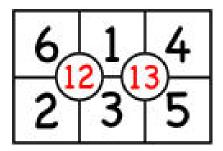
EXPLORATION: How many different answers can you find?





## Puzzle of the Week Sujiko Puzzle – 1 – Notes

THE CHALLENGE & EXPLORATION: Each column of numbers - the 2 and 6, the 1 and 3, and the 4 and 5 - can be reversed in the answer given below. This produces a collection of 2 x 2 x 2 = 8 possible answers, one of which is shown below.



The 1 and 3 must be in the middle column. Call the middle numbers A and B. Add things up in two ways. The sum of all the entries in the two 2 by 2 squares is 12 + 13 = 25. On the other hand, that sum is all six numbers (1 to 6) with the middle column counted twice - that is, the sum is 1 + 2 + 3 + 4 + 5 + 6 + A + B = 21 + A + B. This means 25 = 21 + A + B, or 4 = A + B. This forces A and B to be 1 and 3.

With the middle column being 1 and 3, that forces the sum of the two entries in the right column to be 9. We can only get 9 as 4 + 5 or 3 + 6, but the 3 is already used. Therefore the rightmost column is 4 and 5.

There are only two numbers, 2 and 6, remaining for the leftmost column, and they work.