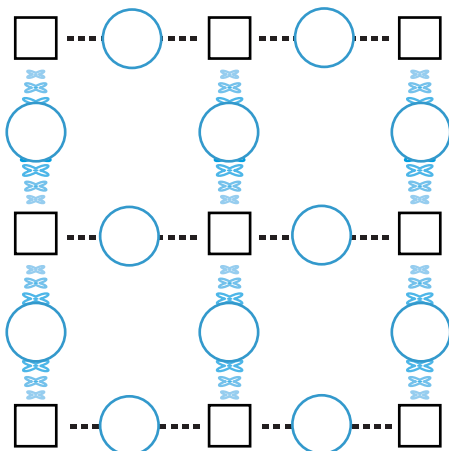


Investigation LCM squares

1. Use this grid.



2. Write the numbers 2, 3, 4, 5, 6, 8, 9, 10 and 12 in the squares, one number in each square.

3. In the circles between each pair of squares, write the LCM (lowest common multiple) of the two numbers.

4. Add all your circled numbers, first adding pairs and crossing them out, and then adding pairs of those totals and finally adding the last three numbers.

5. Start with a new grid.

6. Re-arrange your numbers and repeat.

FIND THE SMALLEST TOTAL POSSIBLE!

What do you notice? Are some numbers used more than others are?
Which numbers are used least? Where is it best to put the 12?

Challenge

Demonstrate that you have found the smallest possible total.