

Challenge

How many squares can you see?



How many squares can you see? 64
How did you work it out? Are there
different ways?

If there are 64 squares altogether
then how many are black?

There are many more different-sized squares on the chessboard.

Mental Maths Starter

The complete list of answers is shown below:

1, 8x8 square

4, 7x7 squares

9, 6x6 squares

16, 5x5 squares

25, 4x4 squares

36, 3x3 squares

49, 2x2 squares

64, 1x1 squares

Therefore, there are actually $64 + 49 + 36 + 25 + 16 + 9 + 4 + 1$ squares on a chessboard! (in total 204).

A worksheet with a large chessboard which children can use to investigate this problem can be found below.

If the children manage to find all of them, ask them if they can see a pattern in the results (i.e. the square numbers in the table).