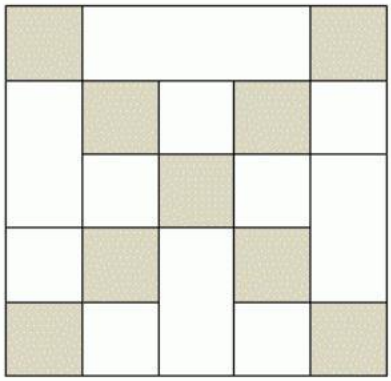
Maths4Fun Question

How many squares are there in this diagram ?



Solution

Classifying by side length there are:

(1) **Sixteen** unit squares: 9 shaded in grey; plus 2 in white in each of the second, third, and fifth rows and 1 in the fourth

(2) **Seven** 2 x 2 squares: 3 starting in second row, 1 starting in third row, 3 starting in fourth row

(3) **Three** 3 x 3 squares: 1 starting in top row, 2 starting in third row

(4) **Two** 4 x 4 squares: Both starting in second row.

(5) **One** 5 x 5 square: Enclosing the diagram

Therefore adding up 16 + 7 + 3 + 2 + 1 **= 29 squares in total.**