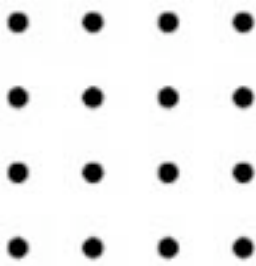


HOW MANY SQUARES?



How many squares can you make by joining four points on this grid?
Look for squares of different sizes and also tilted squares

SIMPLE CASES

Start with the 9-pin grid (3 by 3). Can you find six squares?
Then go on to this 16-pin grid.

THE BIG CHALLENGE: Solve the puzzle for the 25-pin grid.

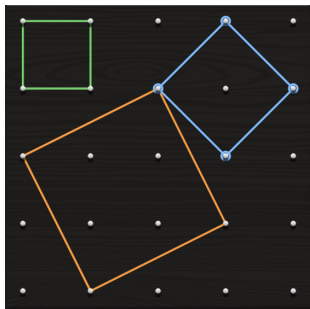
Success depends on a systematic method.

1. Identify all the different types of square
2. Count and record the numbers of squares of each type.
3. Add up to find the total.

What can you say about the areas of the squares?

[Try the Square It game on the NRICH site](#)

HELP



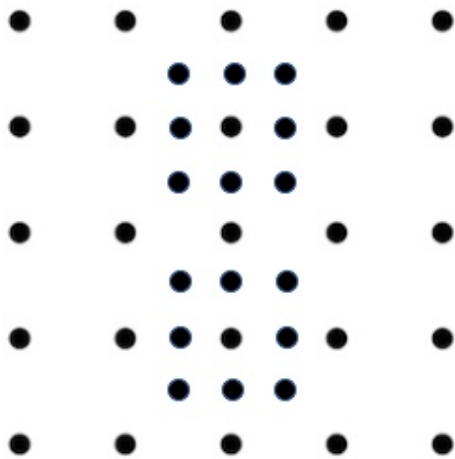
Start with a 4-pin grid (2 by 2) and then 9-pin grid (3 by 3). Next work on a 16-pin grid.

After you have found all the answers for the smaller grids, and only then will you be ready to solve the puzzle for the 25-pin grid.

You should find 1 square on the 4-pin grid and 6 squares on the 9-pin grid.

A geoboard is excellent for exploring all the squares.

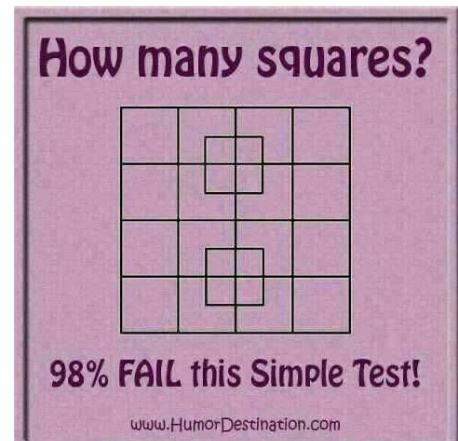
NEXT THE 41 PIN GRID



● Find all the squares that can be made by joining 4 dots on this grid.

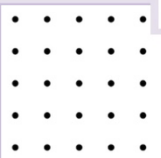
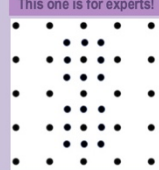
● The view of the same puzzle on the right may help you find all the squares.

● There are 4 straight-up-straight-across squares.
● You must also count tilted squares.



On the left you see the 'How Many Squares' puzzle for a 25-pin grid (5 by 5).

HOW MANY SQUARES? **HOW MANY SQUARES NOW?**

Count the number of squares that can be made by joining 4 dots.

Start with 'How Many Squares?' This one is for experts!

Start by solving the puzzle for a 9-pin grid (3 by 3).

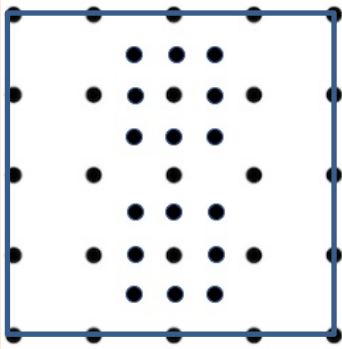
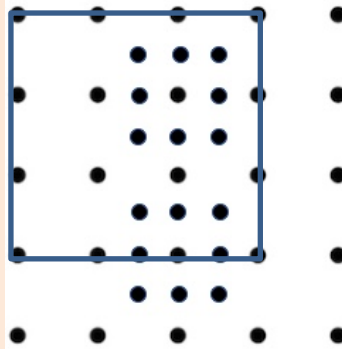
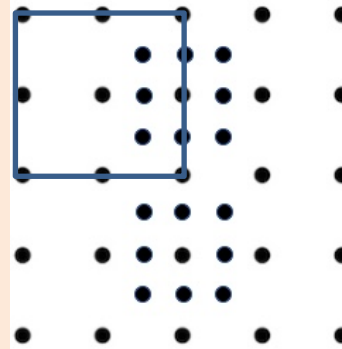
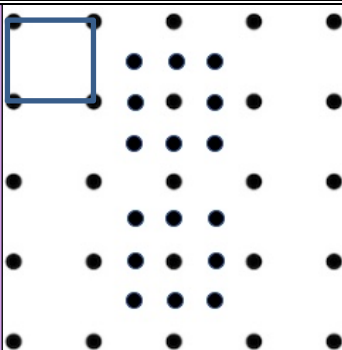
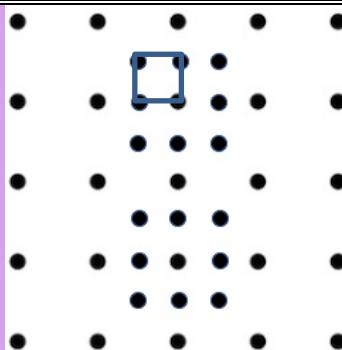
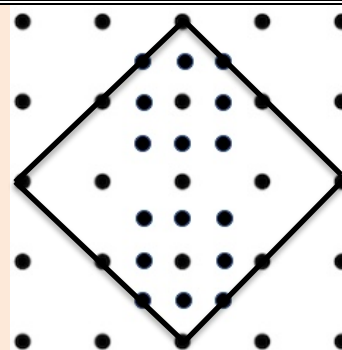
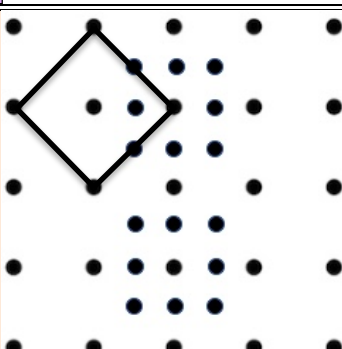
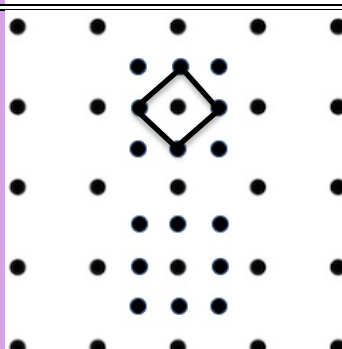
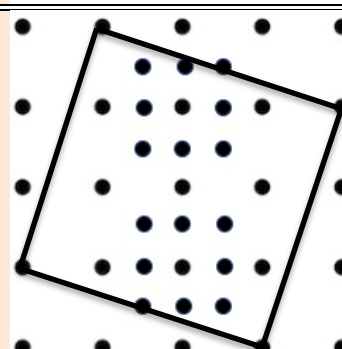
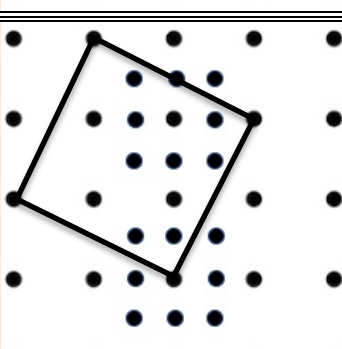

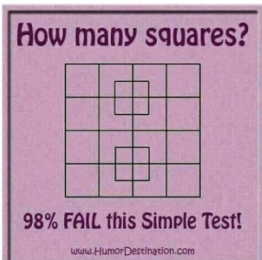
Only move on to the 16-pin and 25-pin puzzles when you understand why there are 6 solutions to the 9-pin puzzle.

When you have solved the 25-pin puzzle, then do the 41-pin puzzle?

This help-sheet gives you all the types of square.

The pink cells in this table apply to the 25-pin puzzle.

You need the lilac cells for the 41-pin puzzle.

		
		
		
	<p>NEXT THE 41 PIN GRID</p>  <ul style="list-style-type: none"> • Find all the squares that can be made by joining 4 dots on this grid. • The view of the same puzzle on the right may help you find all the squares. • There are 40 straight-up-straight-across squares. • You must also count tilted squares. • 	
		 <p>How many squares?</p> <p>98% FAIL this Simple Test!</p> <p><small>www.HumorDestination.com</small></p>