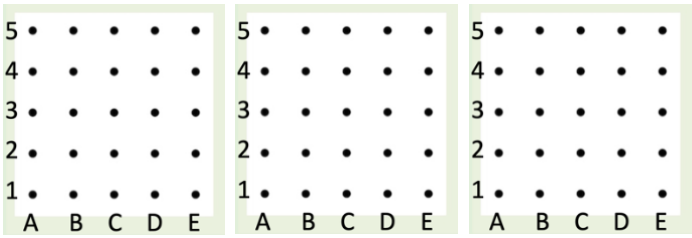
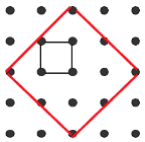
Global Teacher Empowerment Network GTEN
SQUARES AND JIGSAWS

RESOURCES REQUIRED: Paper, pencil, scissors, worksheet

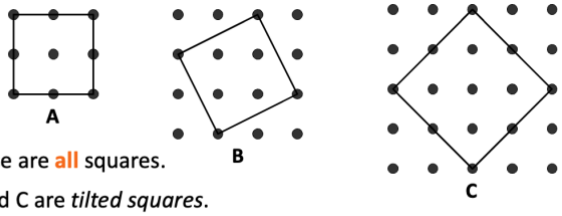
1. Play the Squares Game.



2. **How many pins are there on the geoboard?**
   The diagram shows one square unit.
   How many square units are there on the geoboard?
   Make a square by putting an elastic band round the middle pin on each outer edge.
   What is the area in square units of this square?
   Explain your answer.



3.

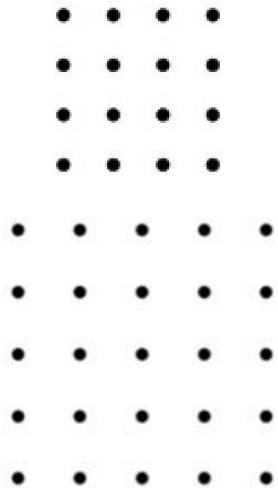


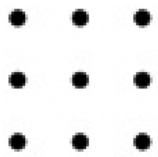
These are **all** squares.

B and C are *tilted squares*.

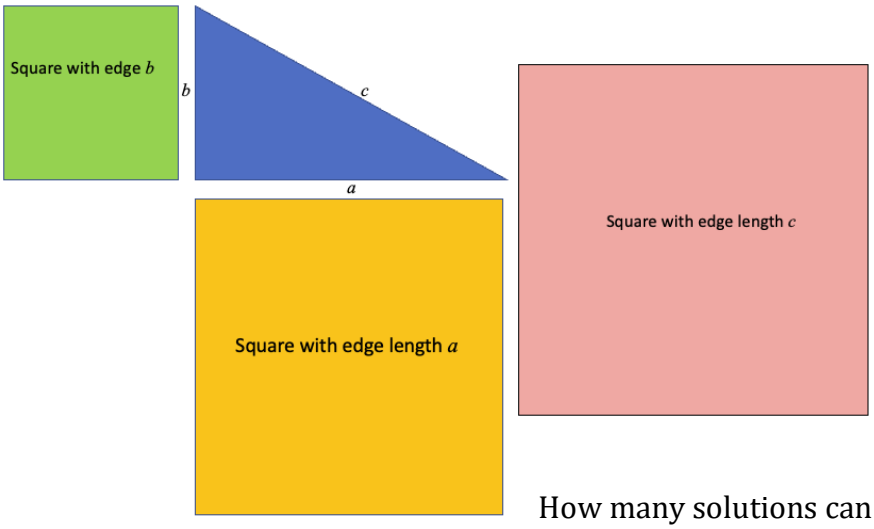
What are the areas of these 3 squares?

Make a square of area 2 square units in the same way.





4. How many squares can you make for 9 pins?
   What are their areas?
   How many squares can you make for 16 pins?
   How many squares can you make for 25 pins?
   What are their areas?



5. Cut out the shapes on the next page for the Make Squares Jigsaw.

Make a square by fitting together 5 of the pieces you cut out.

Make another square by fitting together 6 of the pieces you cut out.

How many solutions can you find?

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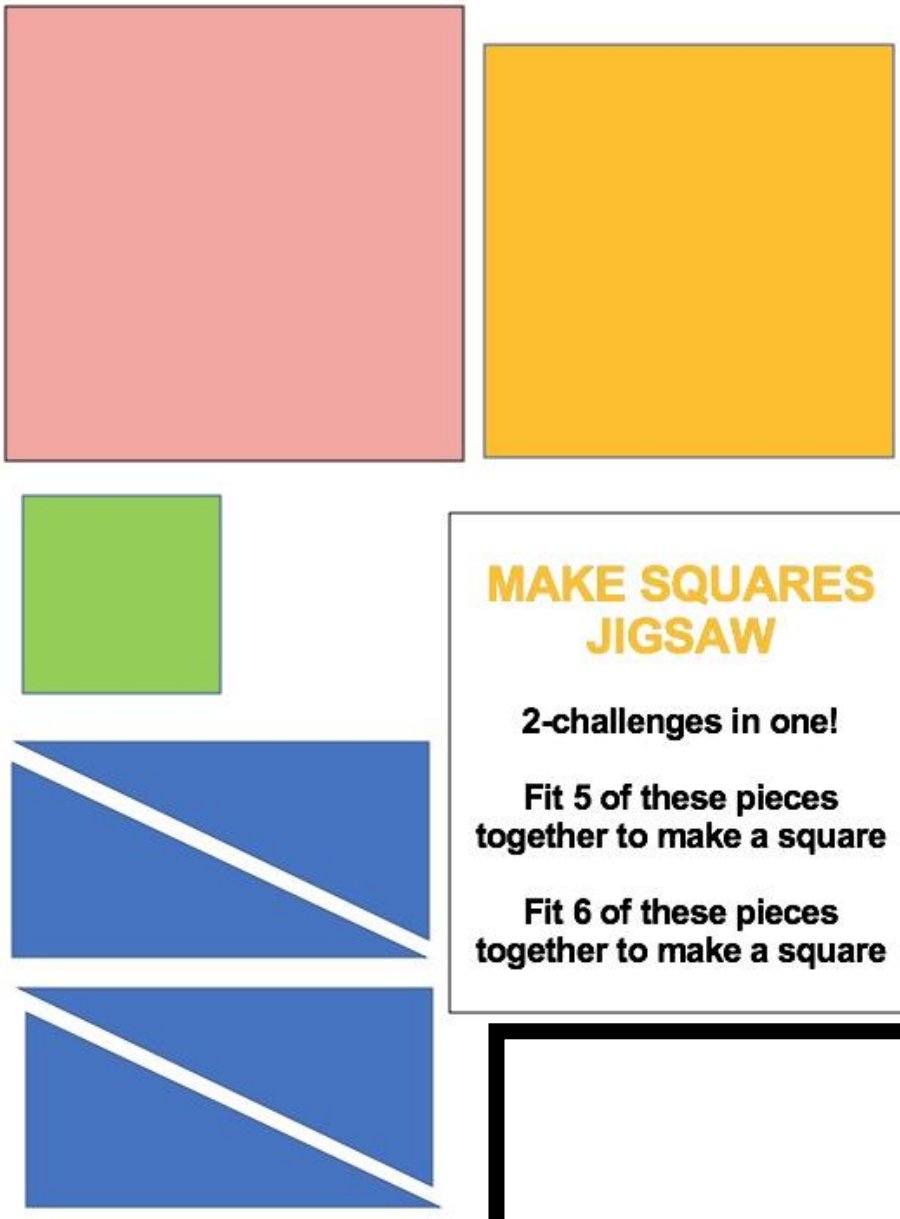
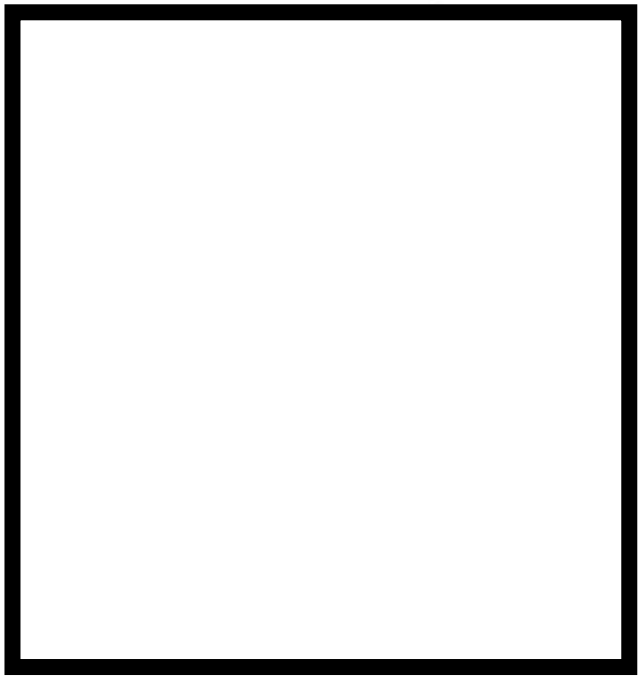


Each one of your solutions should fit into the frame



6. i) Length of edges of outer frame = ?
   ii) Area of outer frame = ?
   iii) Area of yellow square = ?
   iv) Area of green square = ?
   v) Total area of 4 triangles = ?
   vi) From this solution to the puzzle the area of the 4 squares is 2ab so the remaining area of the pink square is =?