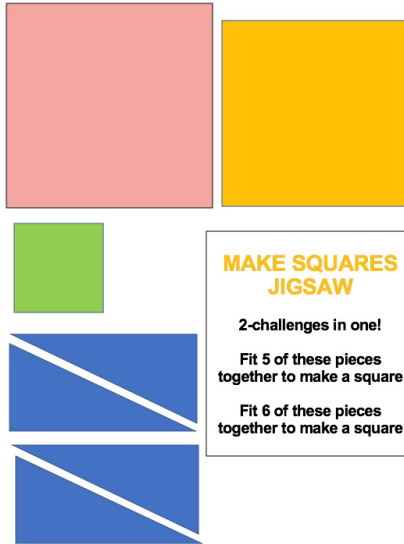


MAKE SQUARES JIGSAW



This jigsaw has 7 pieces and 3 different solutions with variations of those solutions. Can you find all the solutions?

Try the puzzle yourself.

Either make a square with 5 pieces or make a square with 6 pieces.

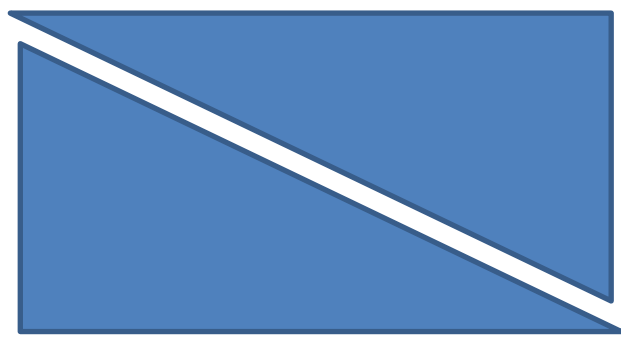
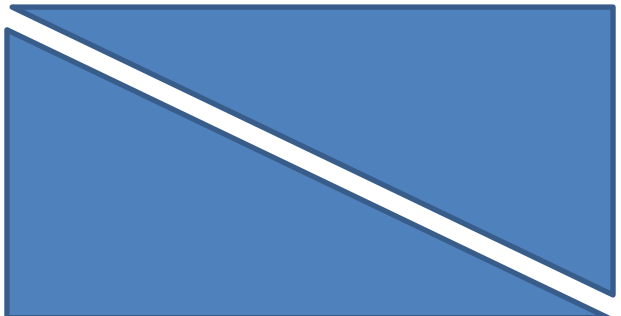
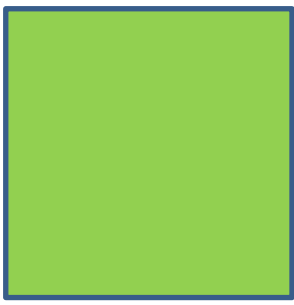
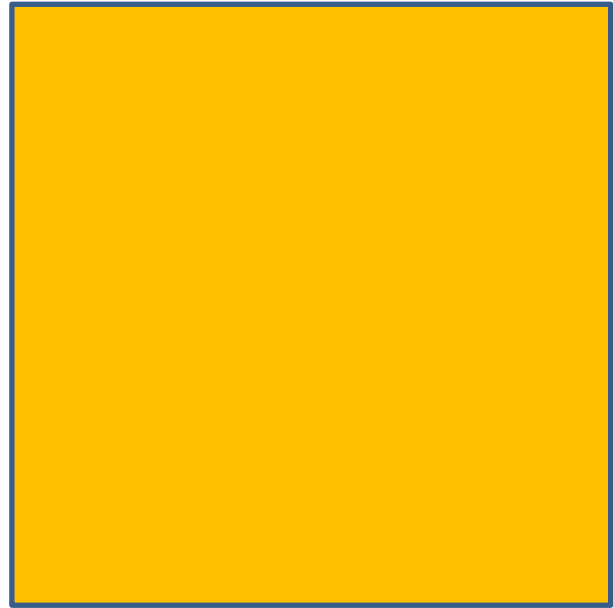
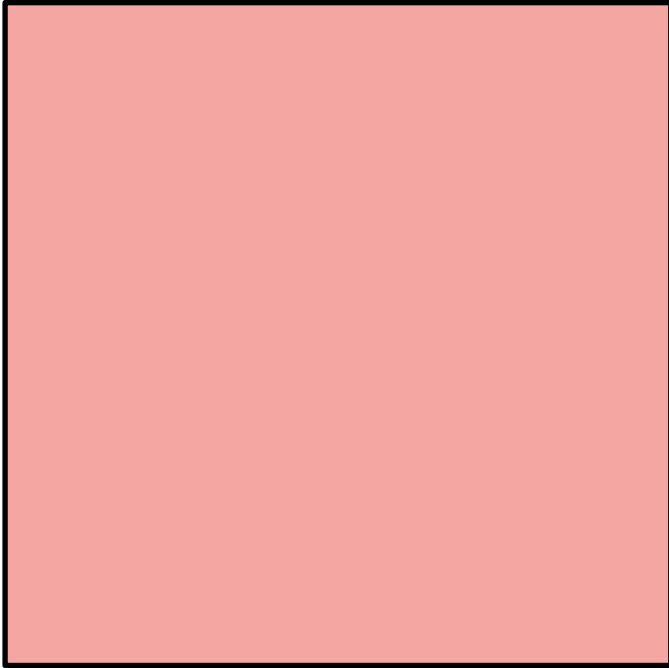
Cut out the pieces given on page 2 or make your own jigsaw pieces using the instructions on page 3.

HELP

It might help to investigate the lengths of all the edges and use what you know about these lengths to help you to solve the puzzle.

NEXT

1. Investigate the areas of the pieces and the areas of the squares in the solution.
2. Investigate different variations of the solutions by observing how the 4 triangles are positioned and transformations of the solutions that produce variations of that solution.



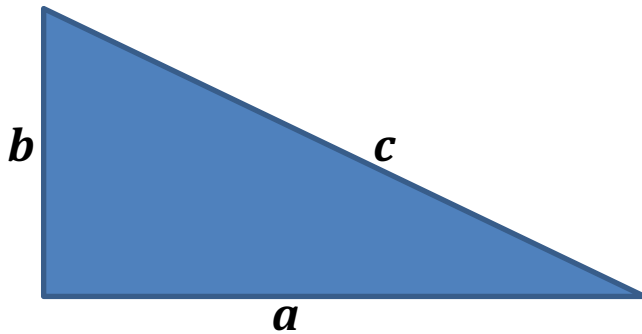
MAKE SQUARES JIGSAW

2-challenges in one!

**Fit 5 of these pieces
together to make a square**

**Fit 6 of these pieces
together to make a square**

MAKE YOUR OWN 'MAKE SQUARES JIGSAW' PIECES



You can use scrap paper or card but you need it to have right angles at the corners.

Start with **any right-angled triangle**. Measure the lengths of the edges and call these *a*, *b* and *c* units.

You need to make 4 triangles that are all identical and 3 squares, one to match each edge of the triangle: $a \times a$, $b \times b$ and $c \times c$.

Use the corners of a piece of paper to give you right angles.

A pin prick to mark a point before drawing the line helps to make the drawing more accurate.

Use the first triangle that you make to give you the lengths of the edges for the other triangles and for the edges of the 3 squares.

You don't need to do any measuring and so you only need a ruler to draw straight lines.

