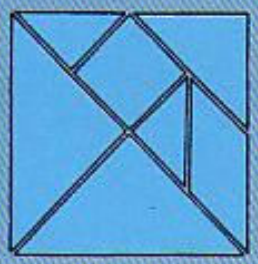
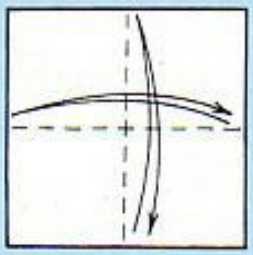
TANGRAM

(ORIGAMI VERSION)
STEVE BIDDLE

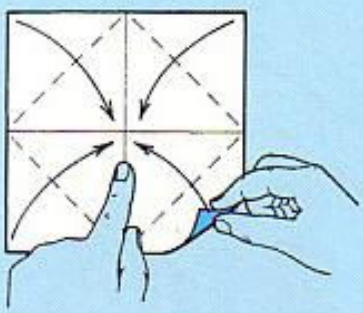
A tangram is a traditional puzzle that originated in China before the year 2000 BC. You can play with the puzzle, either by yourself or with friends, the aim being to rearrange its seven pieces in the shape of a square.

USE FIVE SQUARES OF PAPER, IDENTICAL IN SIZE, WHITE SIDE UP. YOU WILL ALSO NEED A PAIR OF SCISSORS.

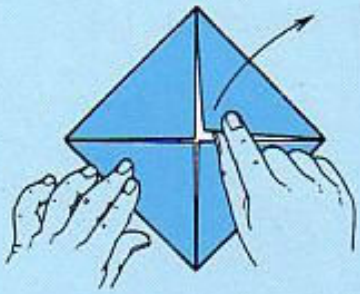




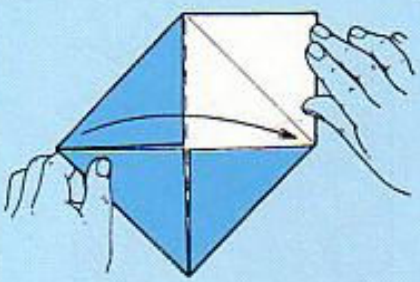
1 First make two large triangles. Valley fold the opposite sides and top and bottom edges of one square together in turn to mark the vertical and horizontal fold-lines, then open up again.



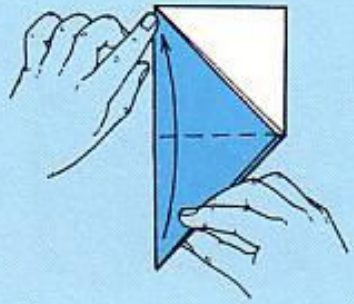
2 Valley fold the corners into the middle, thereby making a shape that in origami is called the blintz base.



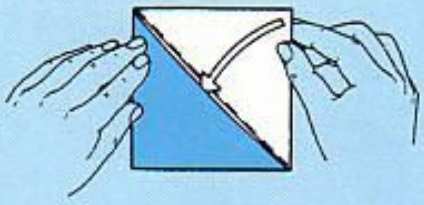
3 Unfold the top right-hand corner.



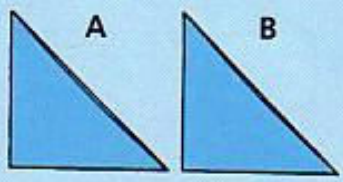
4 Valley fold the paper in half from left to right.



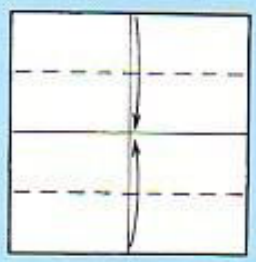
5 Valley fold the paper in half from bottom to top.



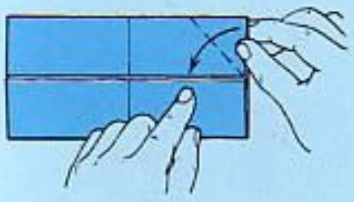
6 Tuck the top right-hand corner into the adjacent pocket, thereby . . .



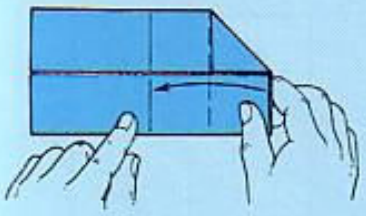
7 completing one large triangle. Repeat steps 1 to 6 with another square. Label the two triangles A and B.



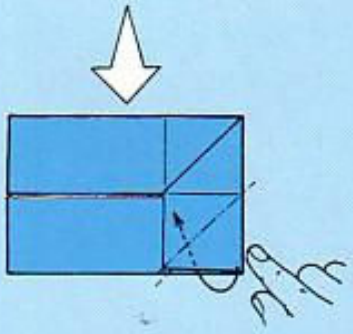
8 The next step is to make a parallelogram. Begin by repeating step 1 with one square. Valley fold the top and bottom edges to meet the middle fold-line.



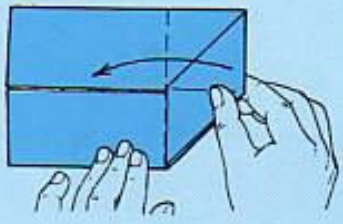
9 Valley fold the top right-hand corner over to meet the middle fold-line.



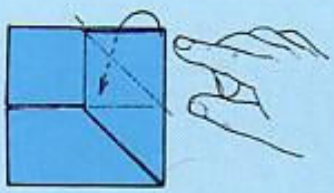
10 Valley fold the right-hand side into the middle.



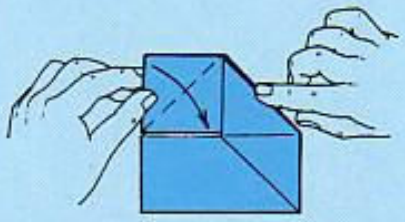
11 Inside reverse fold the bottom right-hand corner.



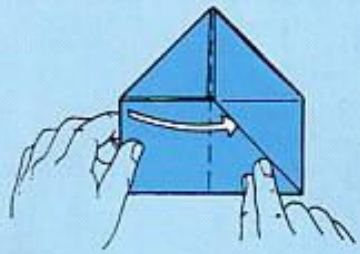
12 Valley fold the right-hand side over along the adjacent vertical fold-line.



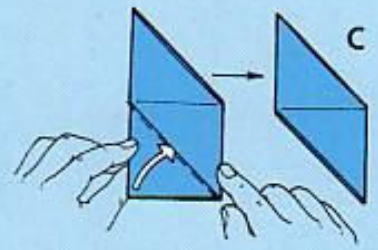
13 Inside reverse fold the top right-hand corner.



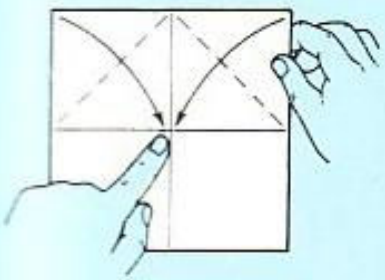
14 Valley fold the top left-hand corner over to meet the adjacent folded edge.



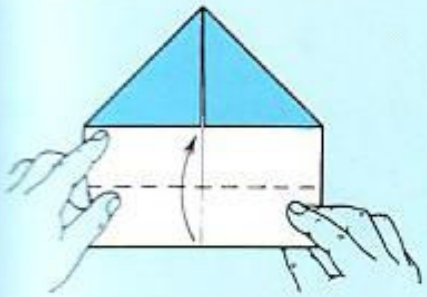
15 Insert the left-hand side underneath the right-hand layers of paper.



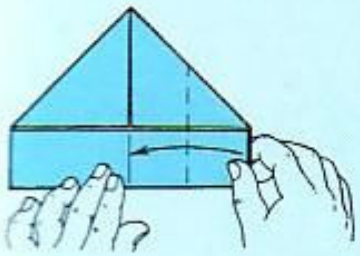
16 Insert the lower left-hand corner into the adjacent sloping pocket, thereby completing the parallelogram. Label the parallelogram C.



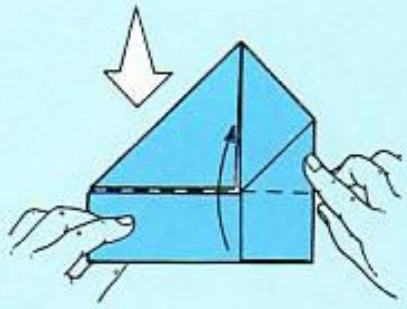
17 Next, make a square. Begin by repeating step 1 with one square. Valley fold the top corners into the middle, thereby making a shape that looks like the roof of a house.



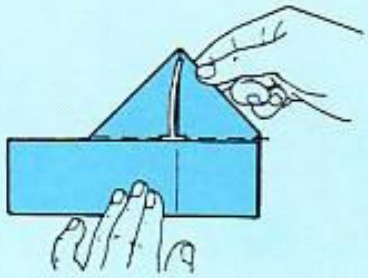
18 Valley fold the bottom edge to meet the roof's bottom edge.



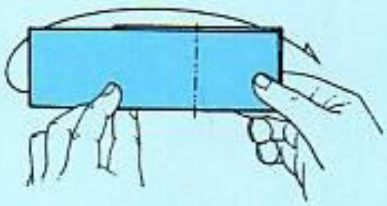
19 Valley fold the right-hand side over to meet the the middle fold-line.



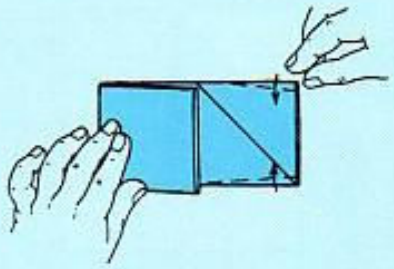
20 Valley fold the bottom edge up along the adjacent horizontal fold-line.



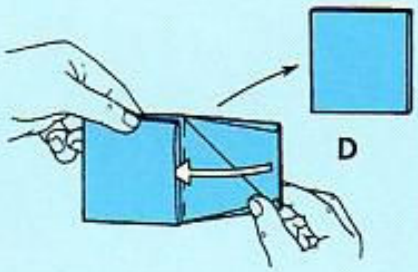
21 Insert the top point underneath the top layers of paper.



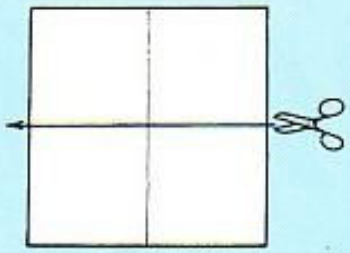
22 Along the existing vertical fold-line, mountain fold behind the left-hand section of paper.



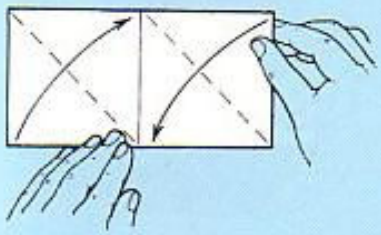
23 Valley fold the top and bottom right-hand edges over on a slant.



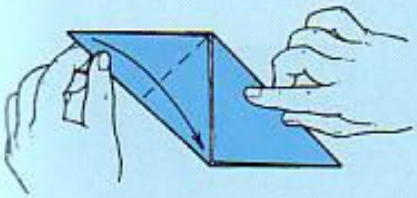
24 Valley fold the paper in half from right to left, inserting the right-hand side into the adjacent pocket to complete the square. Label the square D.



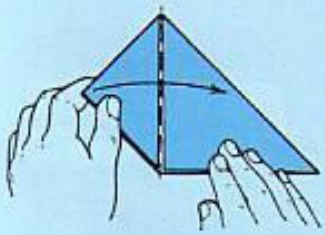
25 Finally, make one medium-sized triangle and two small triangles. Begin by repeating step 1 with the remaining square. Cut along the horizontal fold-line, thereby making two rectangles.



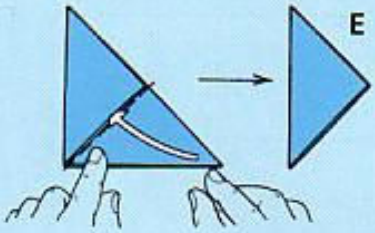
26 Place one rectangle sideways on. Valley fold the right-hand side down, so that it lies along the bottom edge. Valley fold the left-hand side up, so that it lies along the top edge.



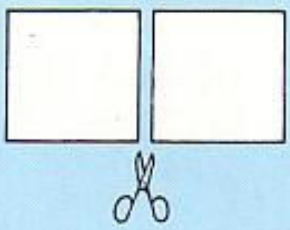
27 Valley fold the top left-hand point down to meet the bottom edge.



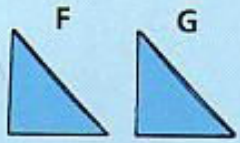
28 Valley fold the left-hand section of paper over along the adjacent vertical fold-line.



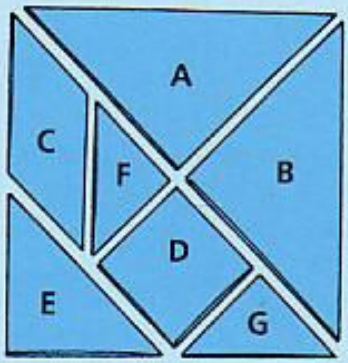
29 Insert the bottom right-hand point into the adjacent sloping pocket, thereby completing the triangle. Label this medium-sized triangle E.



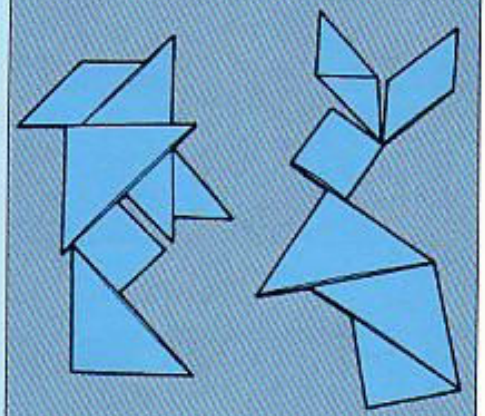
30 Cut the remaining rectangle in half along the vertical fold-line, thereby making two squares.



31 Repeat steps 1 to 7 with each square, thereby completing the small triangles. Label the two small triangles F and G.



32 This is the tangram square. Shuffle the seven pieces, then try to rearrange them into a square without looking at this illustration.



33 Here are just two of the many different shapes you can make from the tangram square. Why not invent a few of your own?