

Shape

Whether you are a parent, teacher or home school educator, we've compiled examples of activities, games and puzzles which can be used to support the learning of shape and space.

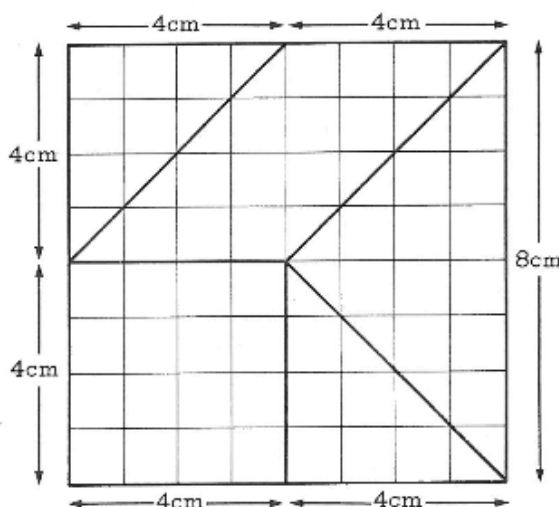
These examples are taken from the 'Shape' packs found in our SMILE resource collection. The mathematical demand increases as you work through the packs. There are lots more ideas in the complete packs, which can be downloaded at <https://www.stem.org.uk/rxzfk>

Answers to cards can be found at <https://www.stem.org.uk/rxxo5>

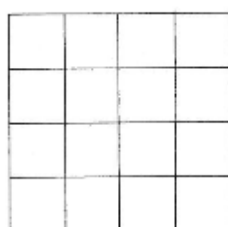
Tangram 1

Draw this on cm squared paper.

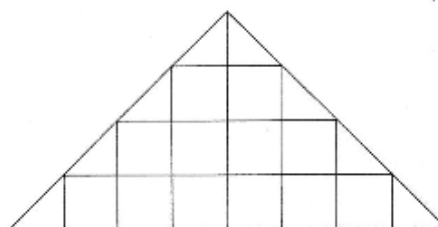
Cut out the pieces.



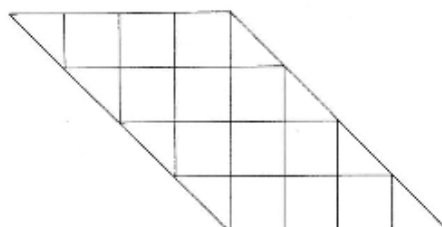
Here are the pieces you should have.



Square



Triangle



Parallelogram



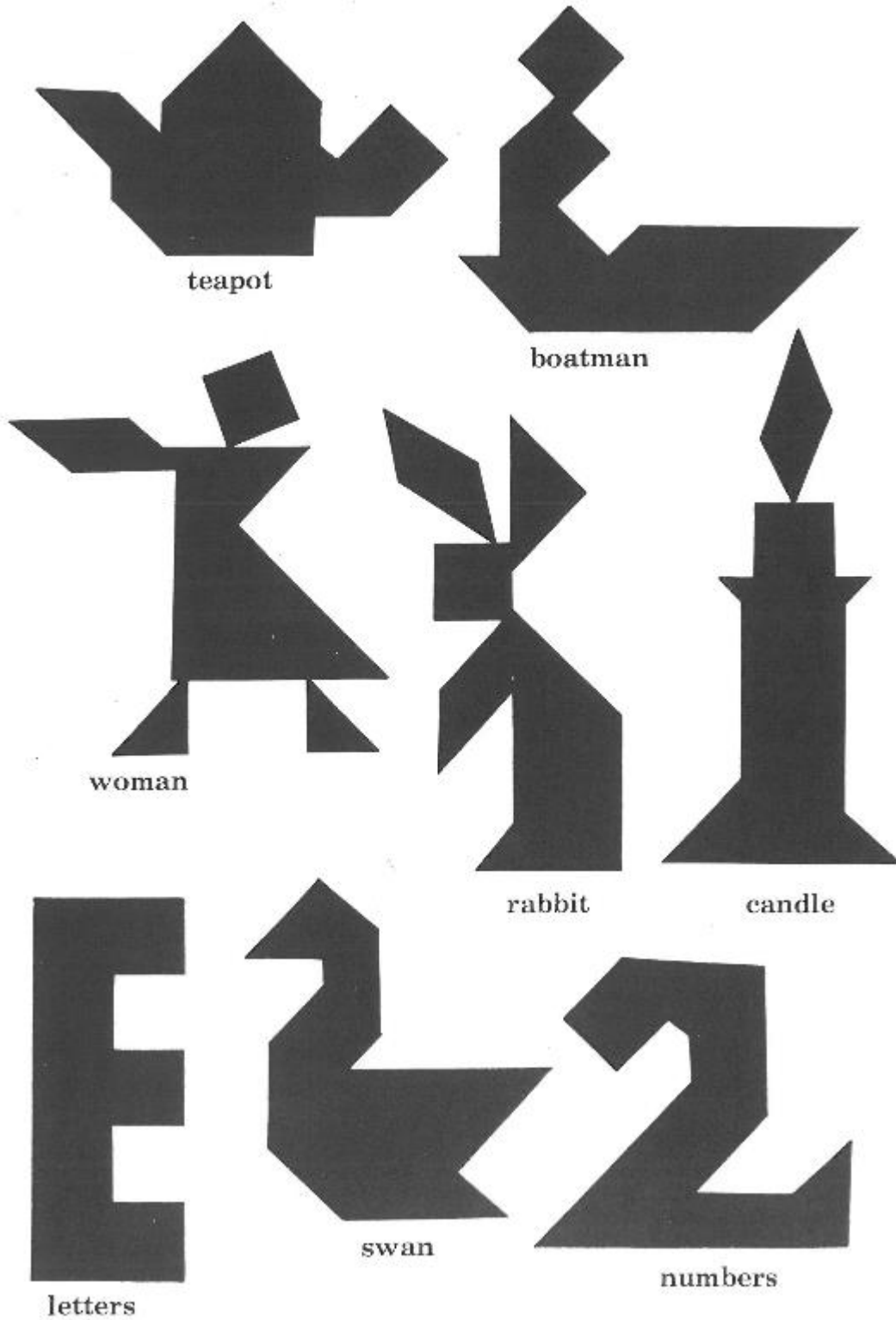
2 small triangles

- 1) Make a square from some of the pieces. *There are two different answers.*
- 2) Make a rectangle from some or all of the pieces. *There are eight answers.* Can you find them all?
- 3) What do you notice about the square and the 2 small triangles?
What do you notice about the large triangle and the 2 small triangles?
What do you notice about the parallelogram and the 2 small triangles?
What is the same about the square, large triangle and parallelogram?

KEEP YOUR PIECES! You will need them again.

Smile 0105

More Tangrams

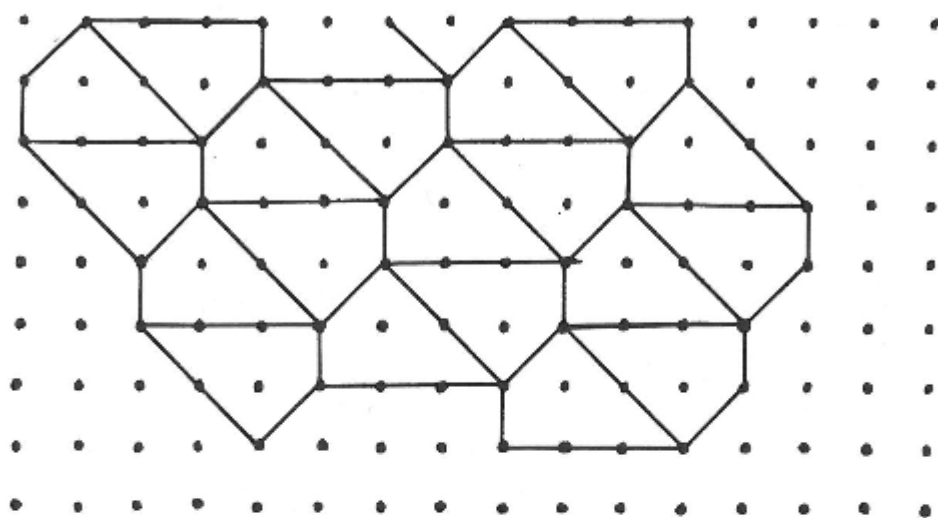


What other shapes can you make using all 7 pieces?

smile
0326

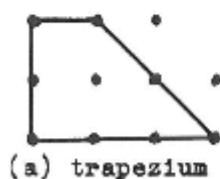
You will need: pinboard, rubber bands, dotted paper

Tessellations of quadrilaterals



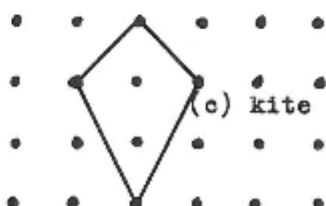
Here dotted paper has been used to make up a tessellation of quadrilaterals.

Make up tessellations from these quadrilaterals.
Use a pinboard to help you and then draw the patterns on dotted paper.

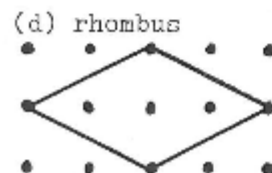


(a) trapezium

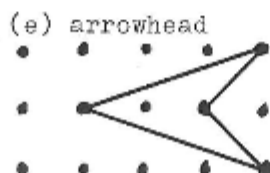
(b) parallelogram



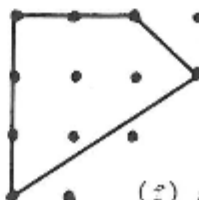
(c) kite



(d) rhombus

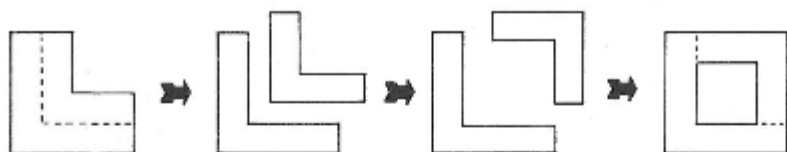


(e) arrowhead



(f) scalene quadrilateral

DISSECTION PAIRS

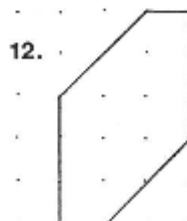
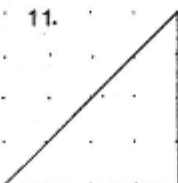
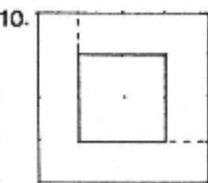
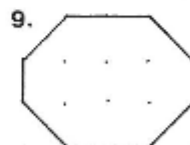
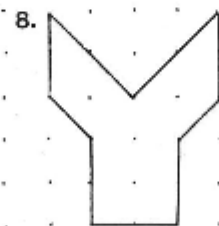
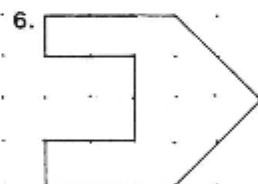
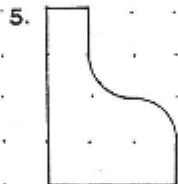
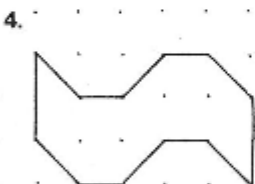
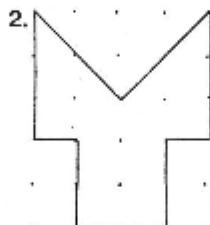
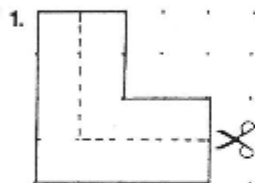


Shape 1 ...

can be cut and rearranged to give ...

Shape 10.

Find 5 other pairs of shapes.



Check your answers by comparing areas.