

TREMENDOUS TANGRAM

Make a tangram from a sheet of paper and create pictures using all of the different shapes. You can make anything from animals to vehicles to furniture or even humans

Overview



What pictures can you make using 5 triangles, a parallelogram and a square? The possibilities are endless! Find out yourself by making your own tangram and creating multiple masterpieces.

Parental support will be needed when folding a cutting our tangrams, but once you've made the puzzle pieces you can have hours of fun building shapes!

What you'll need

- Paper
- Pencil
- Ruler
- Scissors

Cardboard and Glue make the tangram stronger but it is not necessary.

Duration

20 minutes or so.

Suitable for...

Age 4 and up.

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Safety notes

You know your children better than anyone, and you should judge whether

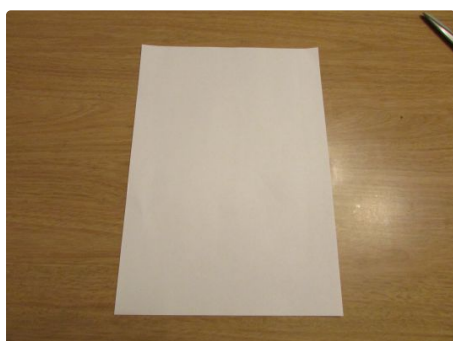
Safety notes

You know your children better than anyone, and you should judge whether they're ready for this activity. You might want to think in particular about:

- Supervision: the activity involves small parts, so there's a choke hazard.
- Glue can damage carpets.
- Scissors are used during this activity so an adults help may be required.

What to do

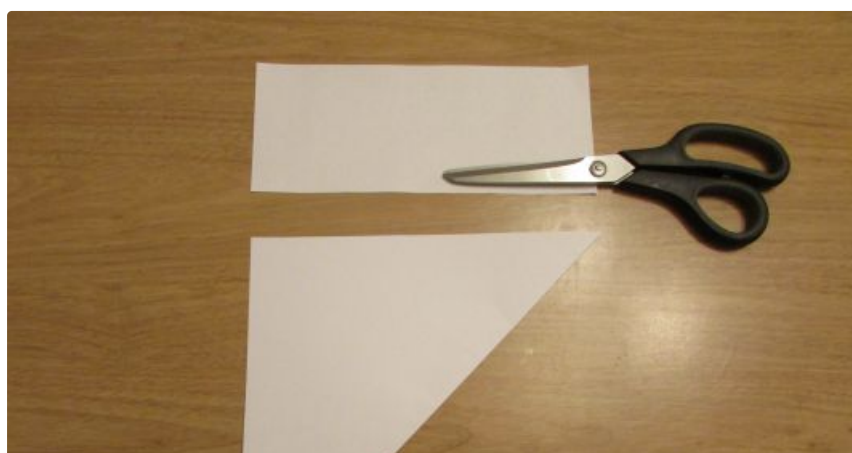
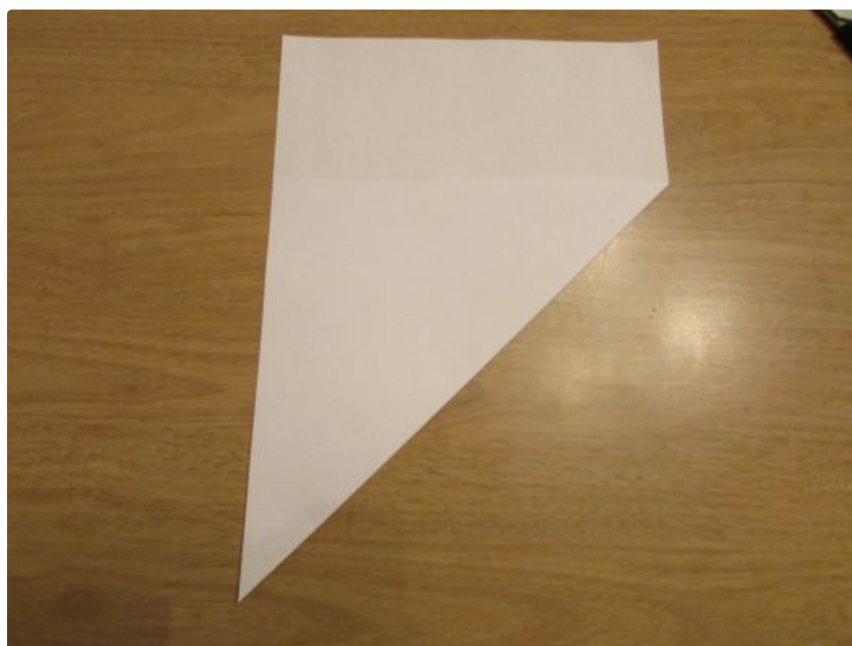
Step 1



Grab your sheet of paper and make it into a square.

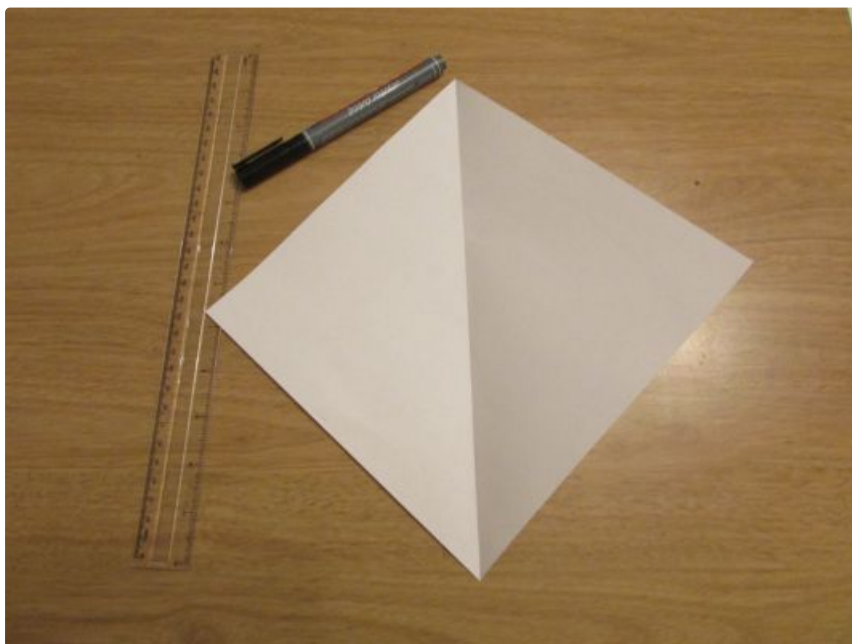
To do this fold the bottom corner up diagonally to the other side.

Chop off the overhanging bit and you should now have a square sheet of paper.

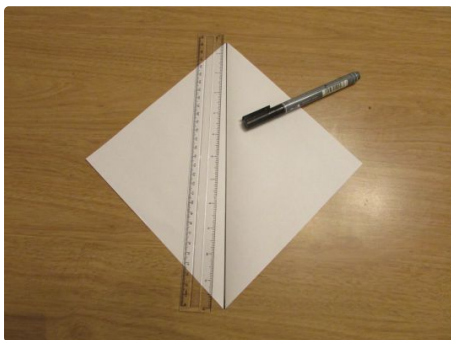


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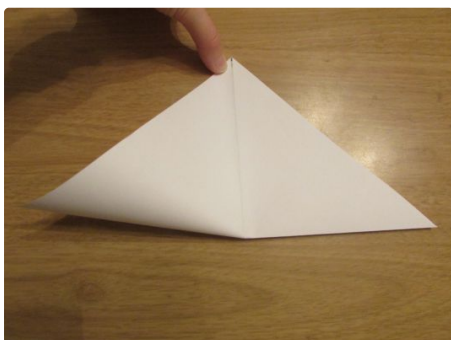


Step 2



Using your pencil and ruler carefully draw a line along the fold you have going between the two opposite corners of your square

Step 3

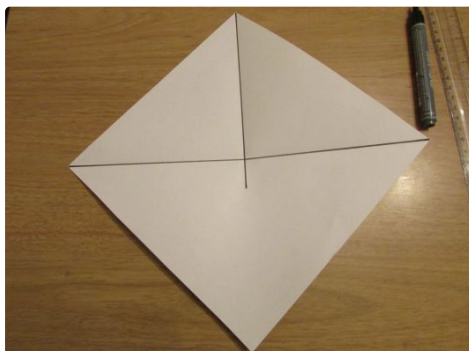
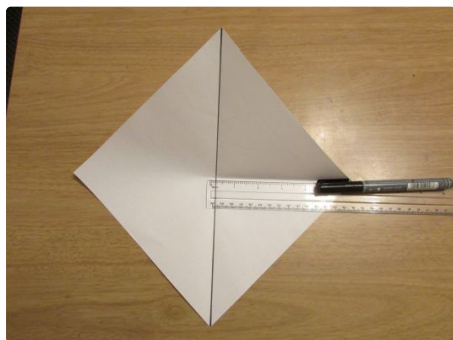


Now fold your paper diagonally the other way but don't press it down.

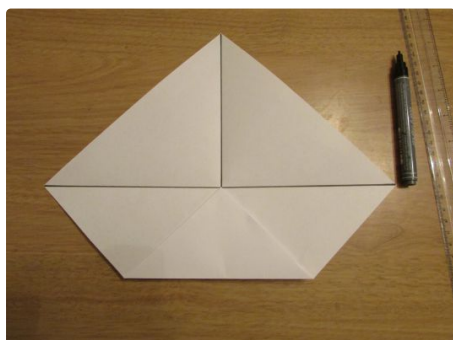
Only flatten the fold from the middle outwards to the right.

Using your ruler, draw another pencil line along this new fold (don't draw your line all the way across the paper!)

Rotate the paper so it looks like the final image.



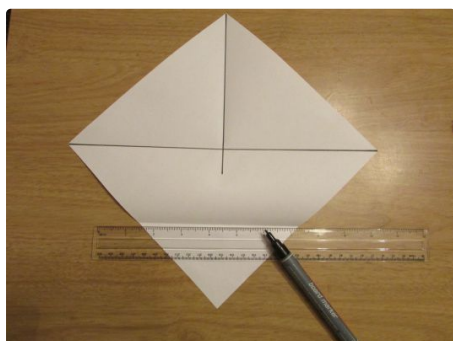
Step 4



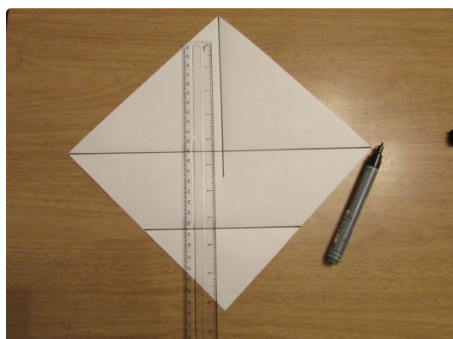
Turn your piece of paper around so that it looks like you have a triangle at the top.

Fold the lower point upwards to the line you have drawn. Press it all down.

Unfold this and use a pencil and ruler to draw a straight line along the fold.

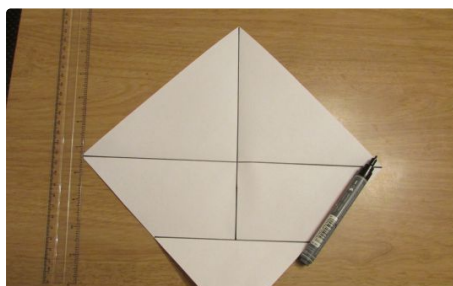


Step 5

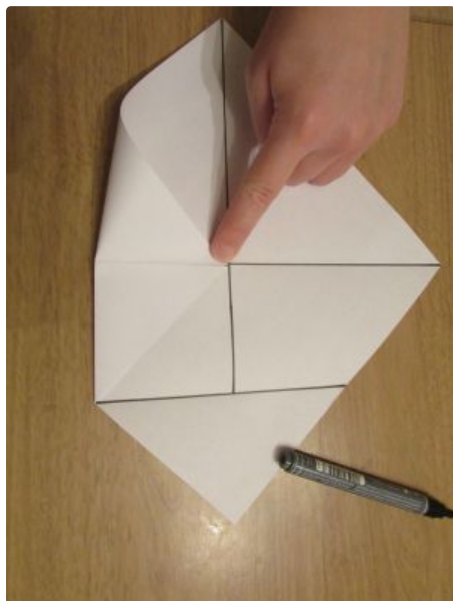


Using the ruler continue the line drawn across the middle up to the line that you have just drawn.

Rotate your paper so it looks like the picture opposite.

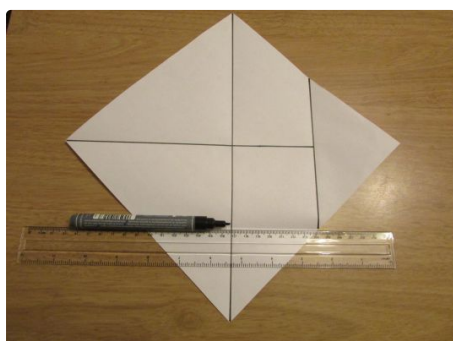


Step 6



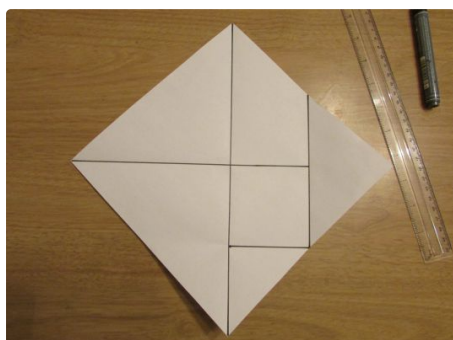
Keep your paper this way up and fold the left hand side to the middle where the lines cross. Don't press it all down!

Only press down on the bottom half of the fold.

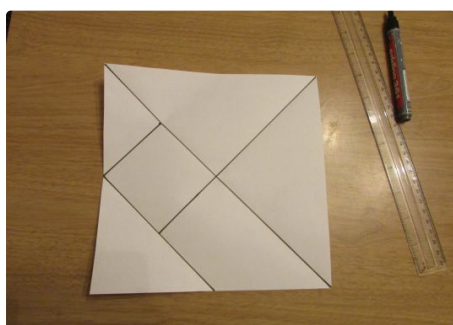


When you unfold it should look a little bit like a square.

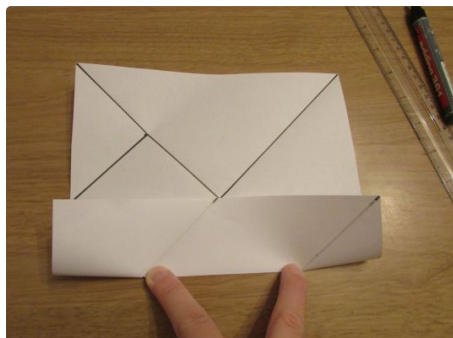
Use a pencil and ruler to draw a straight line along this fold line, again be careful to only draw between the 2 points.



Step 7

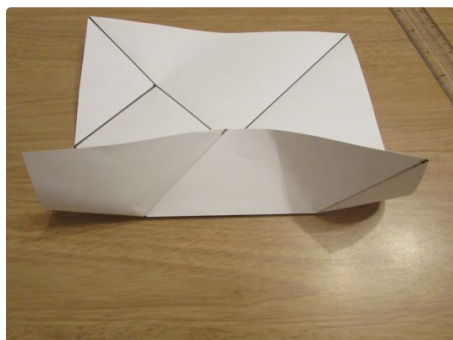


Turn your paper to the side so that the two largest triangles are at the top right half of the paper.

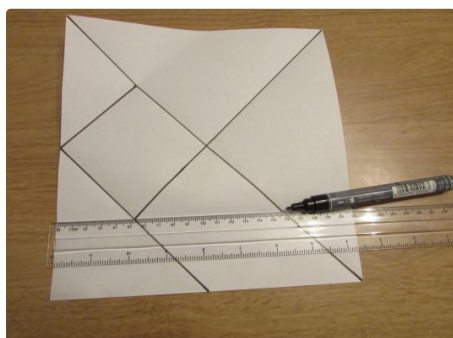


Fold the bottom of the paper upwards to the middle making sure it would cut the square and triangle on the right in half. Don't press it down.

Only press down your fold in the middle between the 2 lines that look like they are making a triangle.

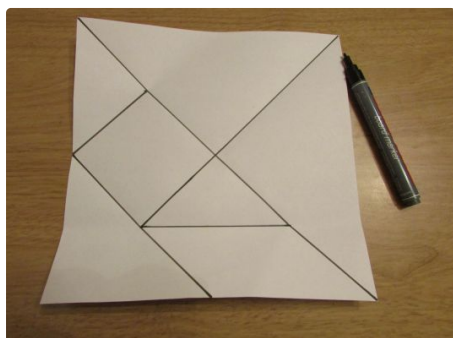


Step 8



Using your pencil and ruler draw a straight line along this small fold.

You now have your tangram template to cut out and decorate!



If you have any cardboard or a cereal box stick your tangram shapes onto it using glue then cut them out with some scissors. This will make them stronger and easier to use when making pictures.



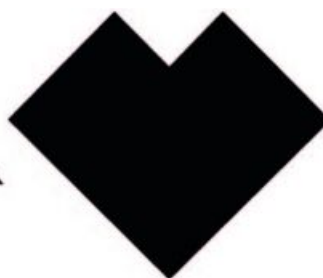
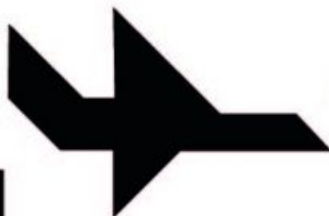


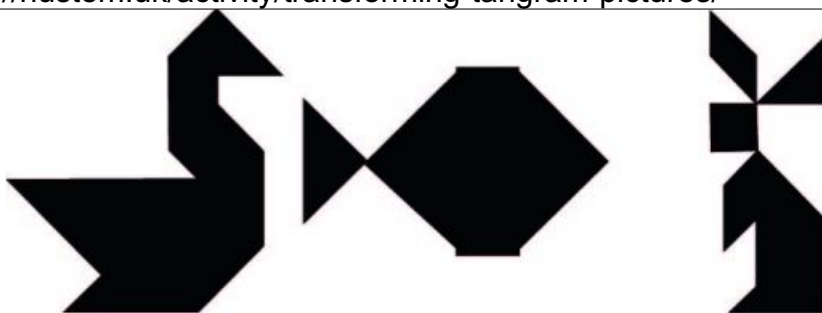
Things to discuss

- What skills are necessary to solve a tangram?
- How could these skills apply to other parts of life?
- Anagrams are a different type of puzzle that involves arranging letters to make different words. How do you think anagrams are similar to and/or different from tangrams?

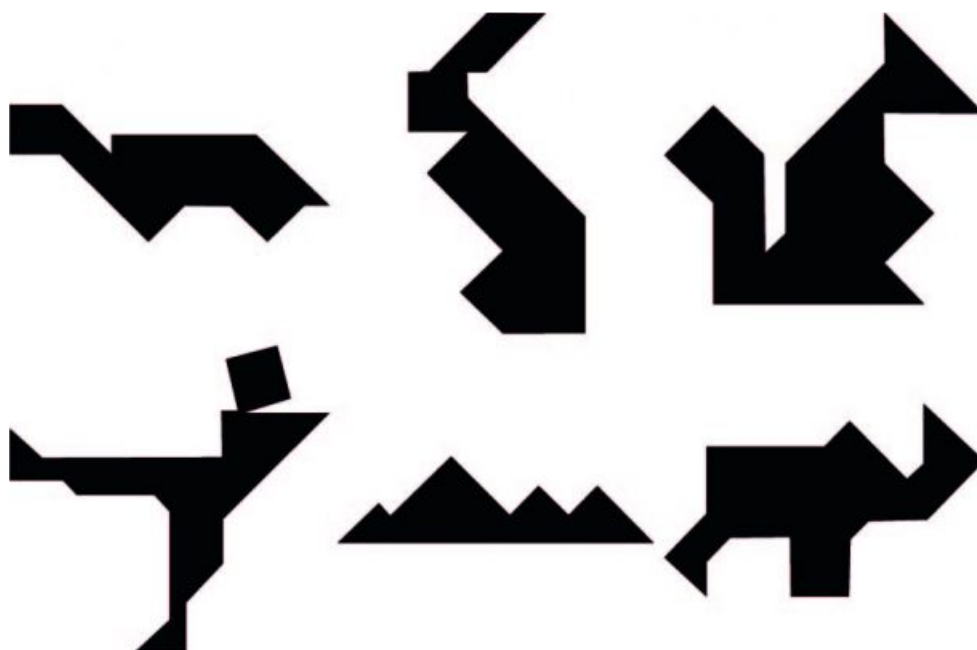
Puzzles

Easy

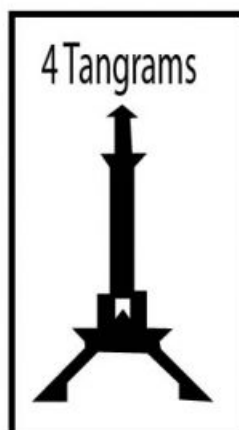
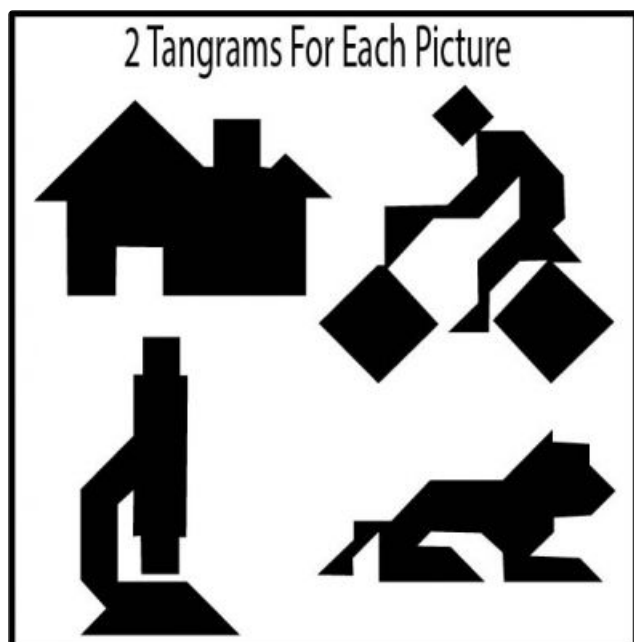




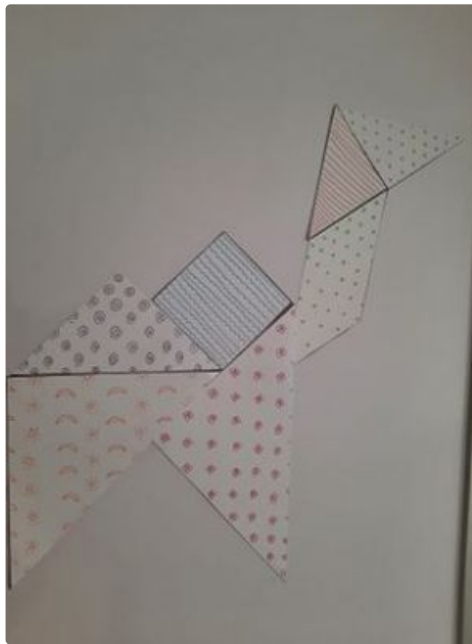
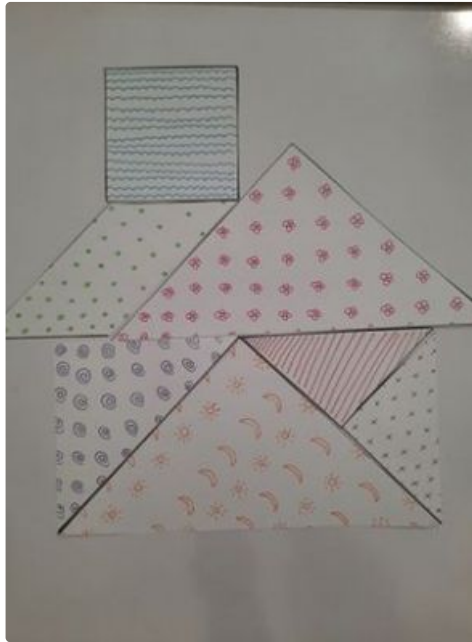
Medium

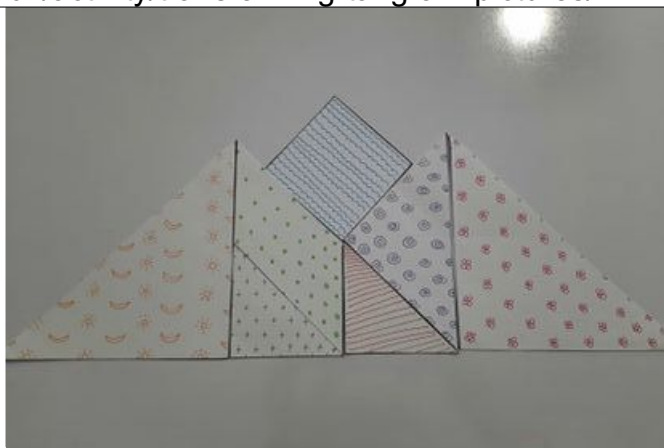


Hard



Other things to try





Legend of the Tangram

The legend of the Tangram tells a story of a wise old man embarking on a long and difficult journey across the land to deliver a piece of delicate glass to the king for his palace.

Near the end of his journey, the old man tumbled down the side of a mountain smashing the glass.

When he got to the king he told him about his journey and the broken glass but, to his surprise, when he opened his bag he saw that the glass was not shattered but instead was broken into seven perfect shapes.

The wise old man had a terrific idea, he used these shapes to form pictures to tell the king of his journey: he showed the king his home, the camel and monks he met in the desert, a boat he used to cross the river and the mountain that he climbed.

The king enjoyed these pictures so much that he had the 7 shapes recreated in wood – this is now called a Tangram

Try and make your own story using the Tangram.

What things can you make?

