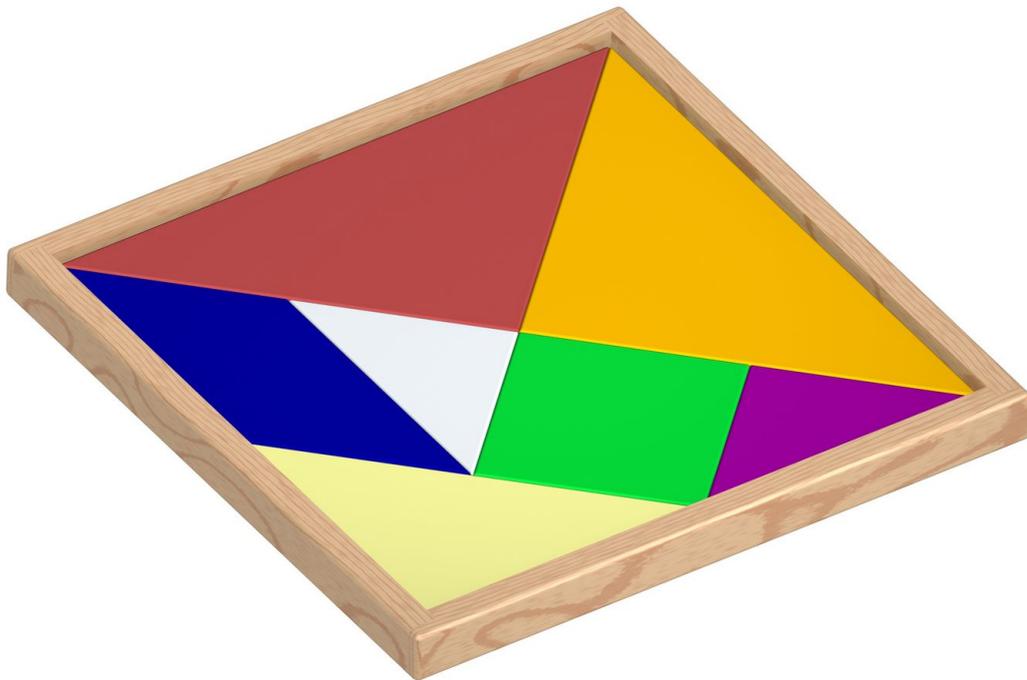


Tangram puzzle plan

Tangram is the most popular dissection puzzle in the world. Tangram originates from China and it is probably more than 1000 years old. The first known descriptions are from the beginning of the 19th century, but in those days tangram was already considered to be a very old game in China. It is unknown when or who invented this very interesting puzzle. In the early 19th century it was brought to Europe from China and it caused frenzy similar to ones caused by Tetris or Rubik's cube. Tangram puzzle consists of seven flat shapes called tans, which are being made by cutting a square. The goal is to form a specific shape by using all the 7 tans and they must touch, but not overlap. The specific shape that needs to be assembled is usually given only as an outline or silhouette. There are a few thousands of shapes, which you can make by using tans. Some shapes can be put together in several ways.



Tangram can be made of various materials like wood, metal, plastic, cardboard, etc. On the next picture we are giving you the cutting pattern, which you can use to make your own tangram puzzle.

There are no firm rules, which will dictate an overall dimension of a square of which the tans will be cut. Usually, the square has dimensions 100 to 200mm. If you are making it for the kids, choose the dimensions close to 100mm, and if you are making it for adults, go for a square dimensions close to 200mm. We put a grid on the picture, which will help you during the drawing of your cutting pattern.

When you cut precisely all the tans, you will have 5 triangles, one square and one rhomboid available. Out of them you can begin to stack tasks – some of them we present to you on the following image.

The tangram puzzle is a very interesting, because there are several thousands of figures and shapes that can be arranged of tans. Solutions can be some geometric shapes, but also various figures resembling ships, people, animals...

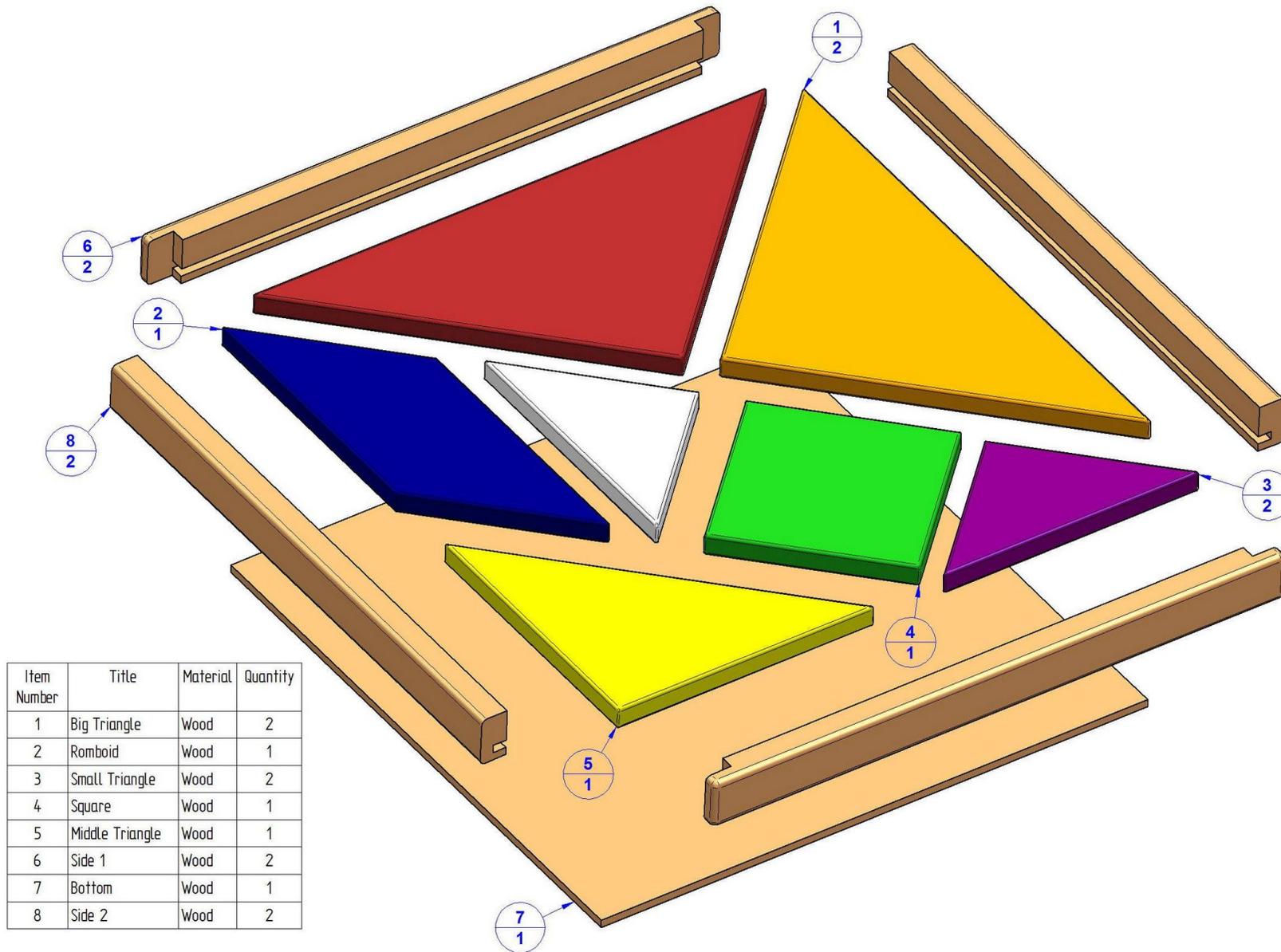
On the internet and in books you can find a great number of shapes, into which you can stack tangram puzzle and we are sure that it will be quite interesting for you or your children to solve tangrams, this will make you forget everyday problems, phone and computer games.

Making tangram puzzle is a quite suitable for the beginners, and especially for scholars. There are numerous computer games that simulate tangram play, but you must agree, that this is not the same thing as solving it with friends on your table.

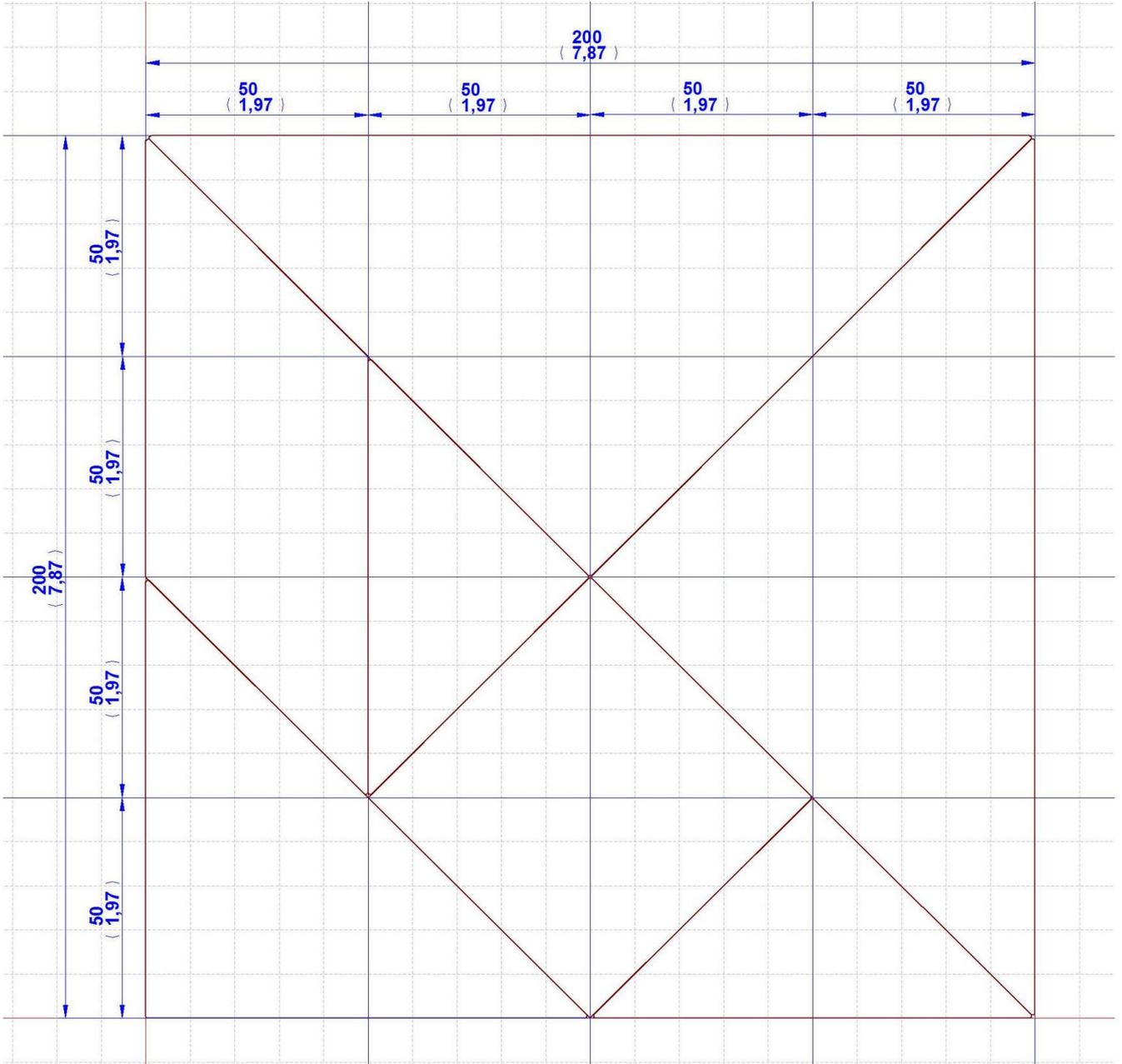
One of the interesting things about tangram are so-called paradoxical situations. You can see on the image below that 2 apparently same shapes (squares) are assembled, but the right one has holes, which tells you that they do not have the same surface – and this is in fact mathematically impossible. There are many similar paradoxes by which tangram puzzle can be assembled, but when you check all the calculations, you will see that shapes indeed differ a little in size.

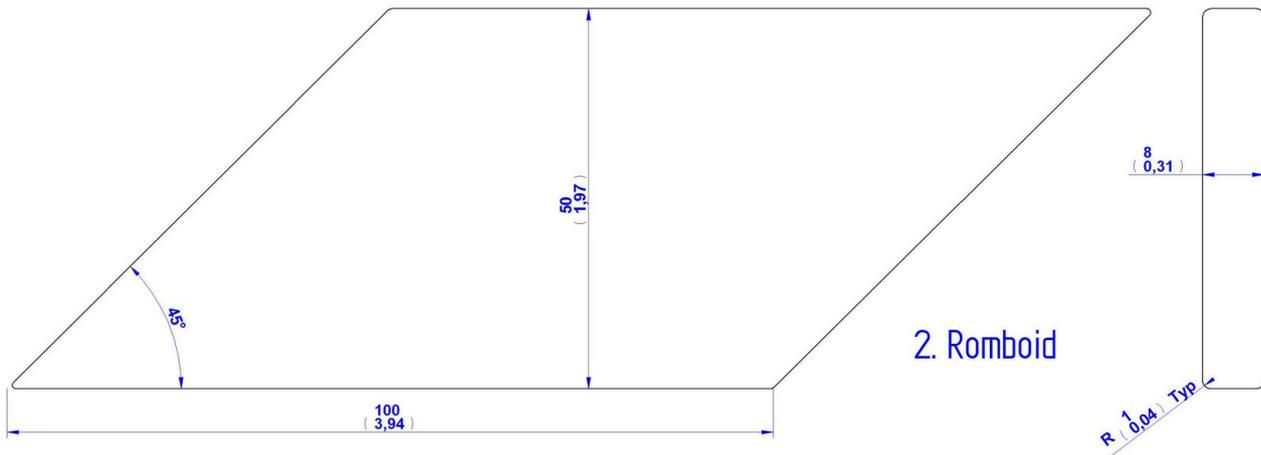
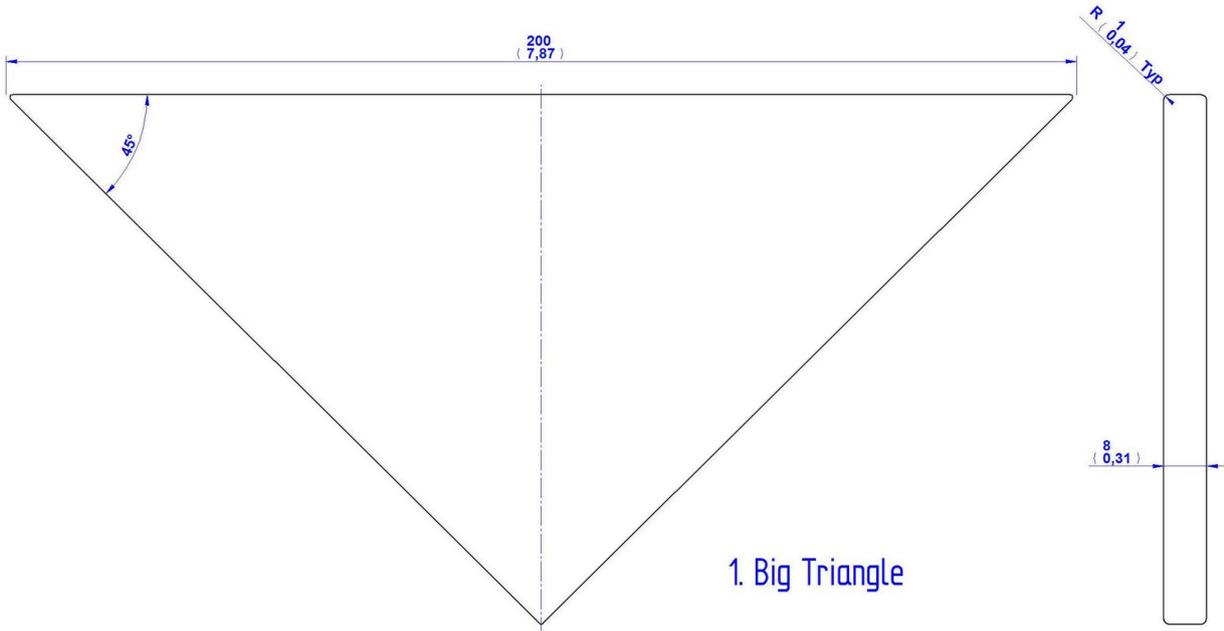
Example from the picture: Although these two solutions look the same visually, by measuring them you will realize that the right shape is not a square (as the left one is), but a rectangle.

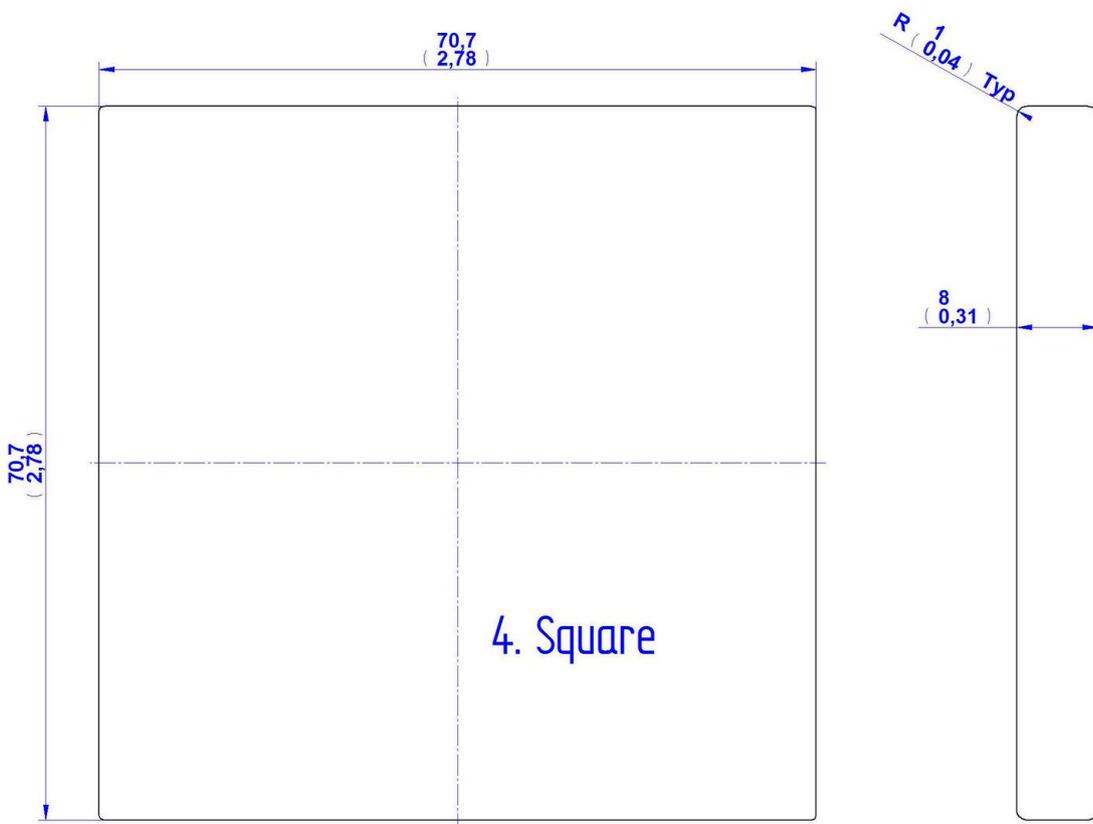
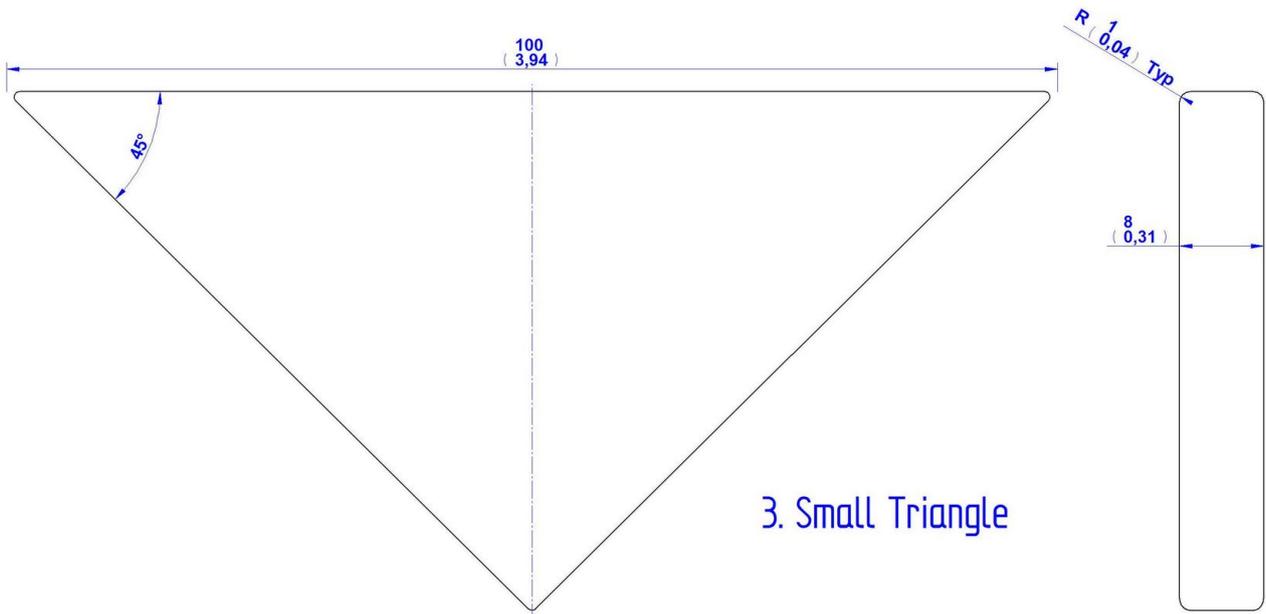
Parts List

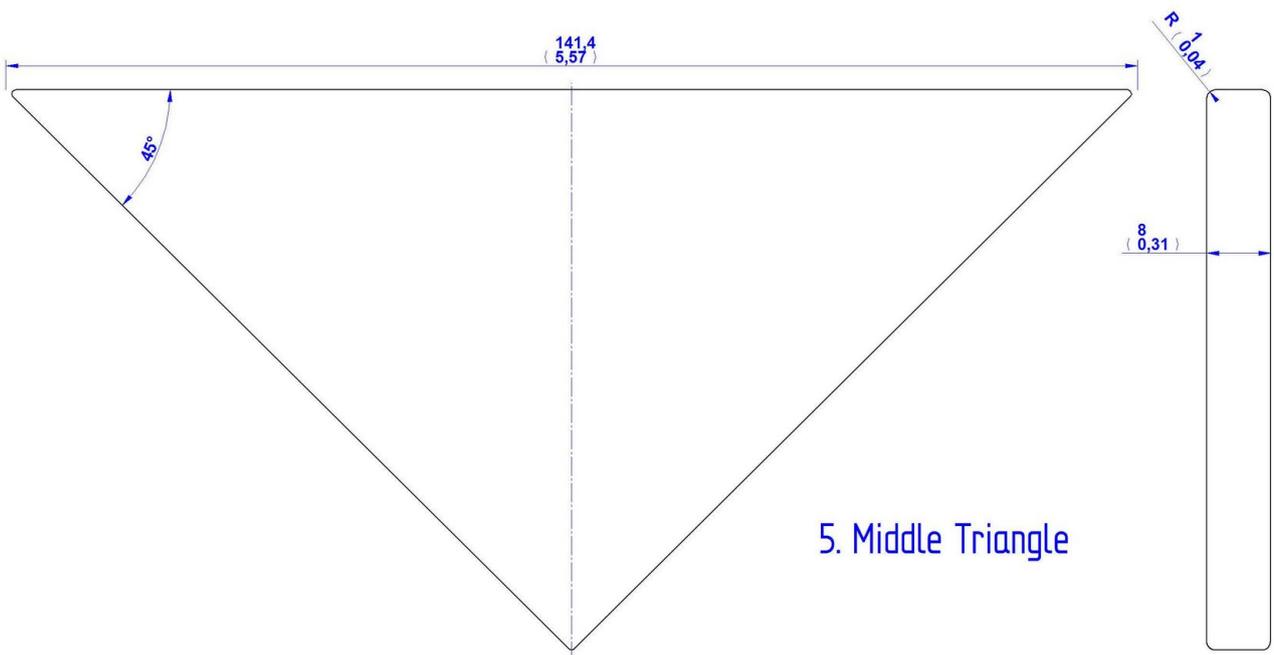


Item Number	Title	Material	Quantity
1	Big Triangle	Wood	2
2	Rhomboid	Wood	1
3	Small Triangle	Wood	2
4	Square	Wood	1
5	Middle Triangle	Wood	1
6	Side 1	Wood	2
7	Bottom	Wood	1
8	Side 2	Wood	2

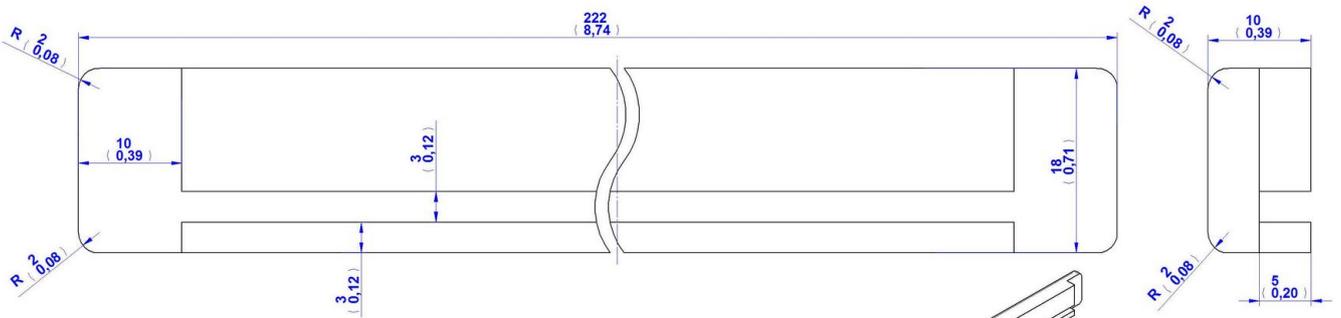




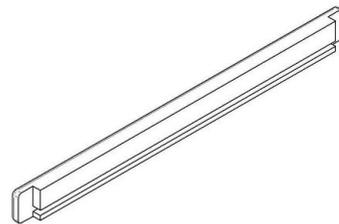


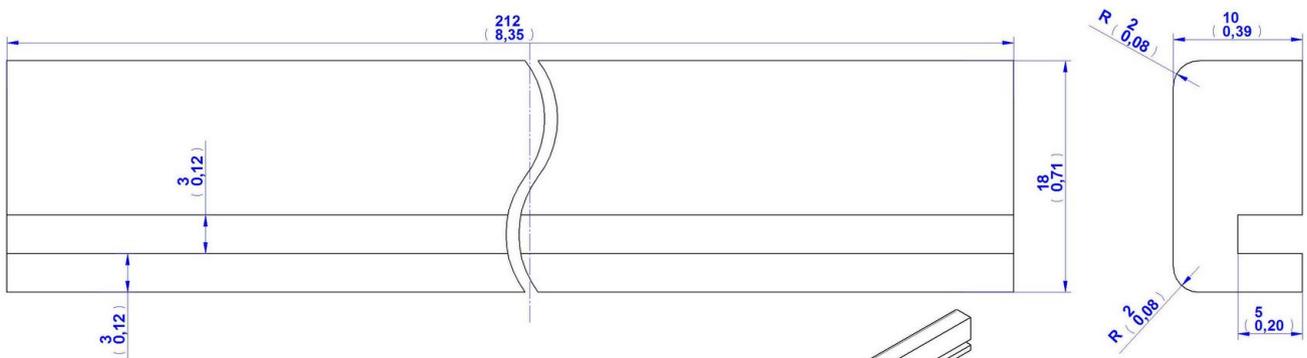
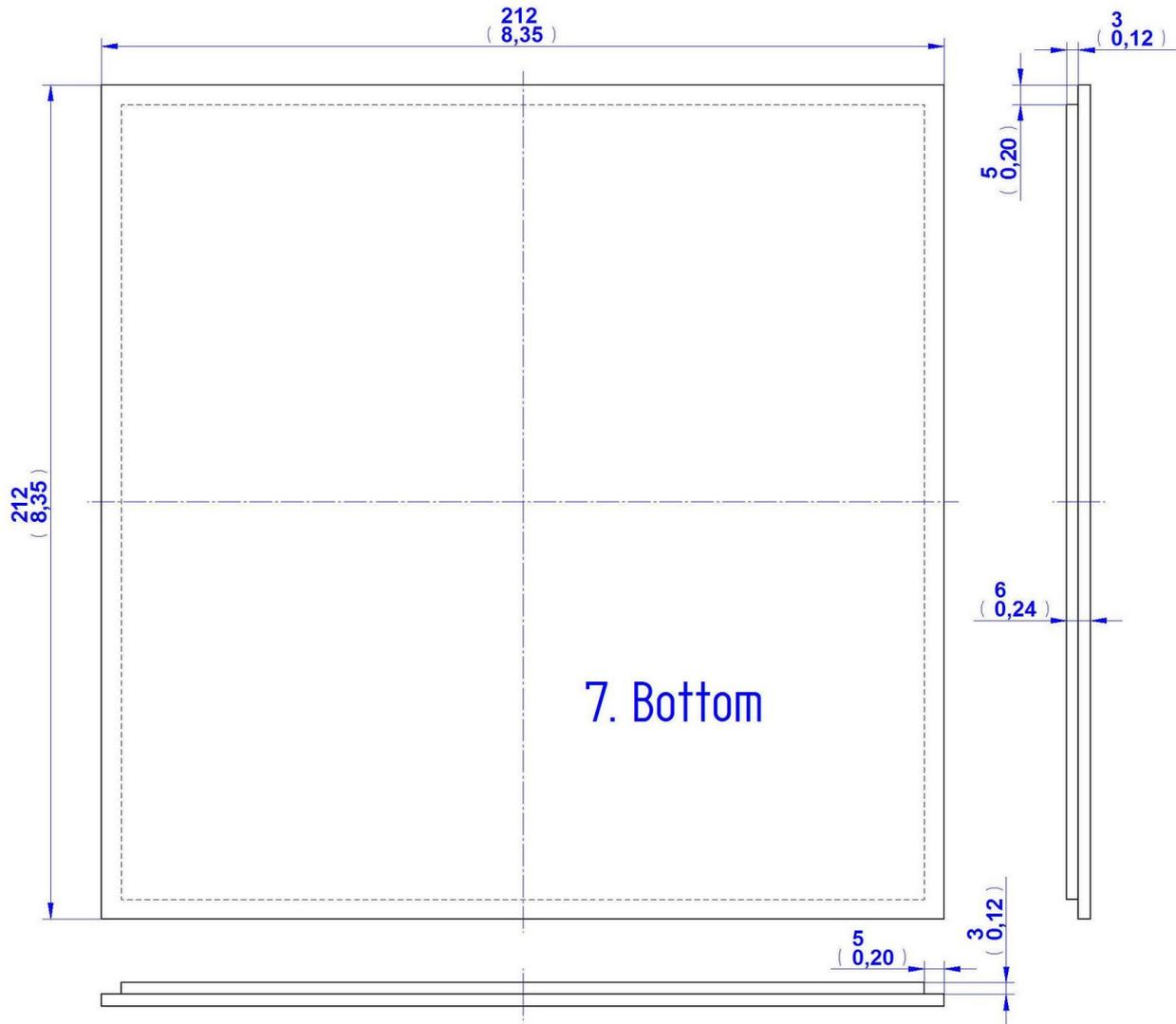


5. Middle Triangle

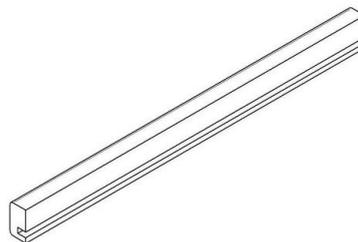


6. Side 1

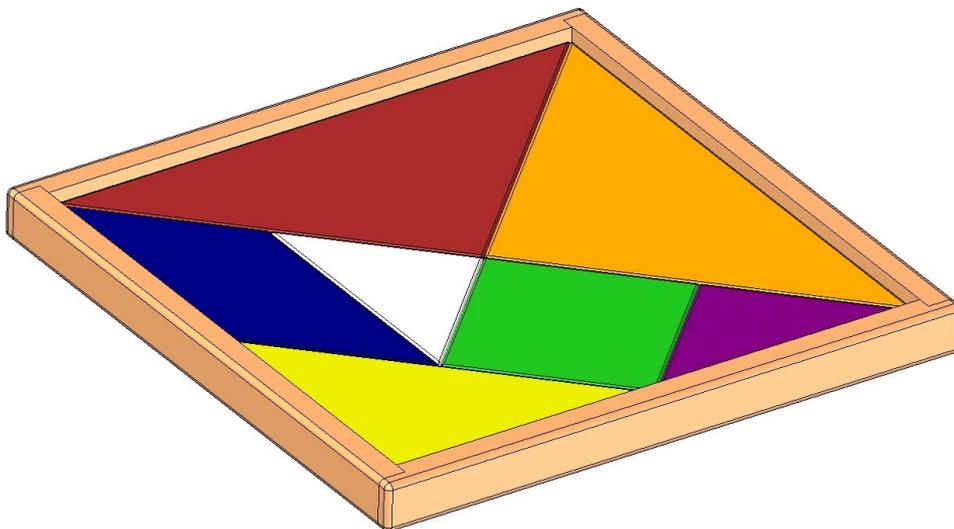
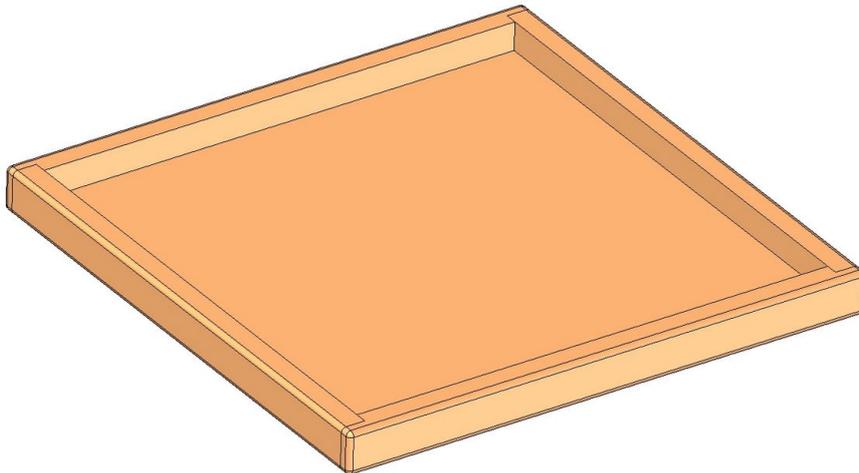
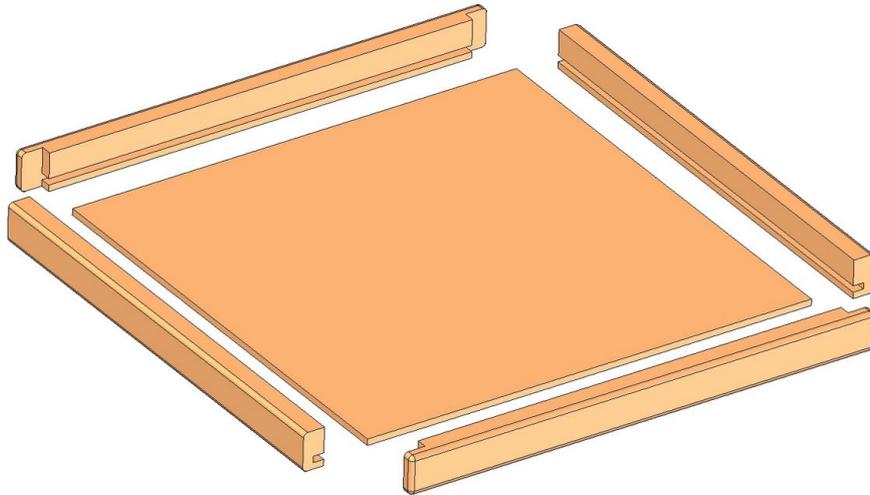




8. Side 2



Assemblage images



Examples

