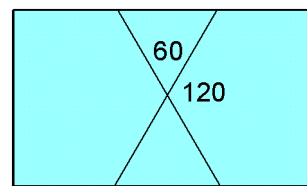
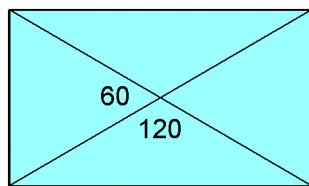
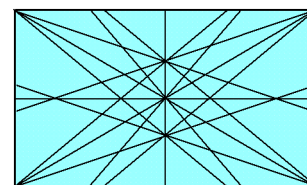


# The Bronze Rectangle / Double Bronze Rectangle / Bronze Triangle

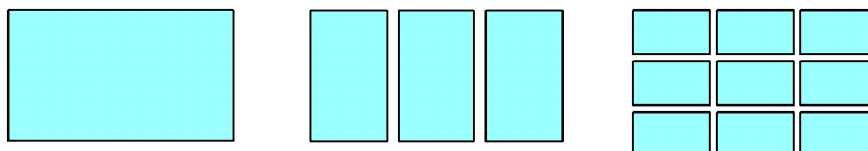
The bronze rectangle has sides in the proportion  $1:\sqrt{3}$  and its diagonals intersect at angles of  $60 / 120$  degrees. For this reason, bronze rectangles and double bronze rectangles are very useful as starting shapes in paperfolding, particularly in modular origami.



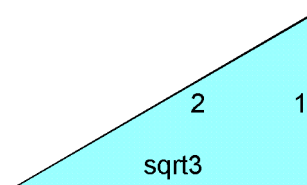
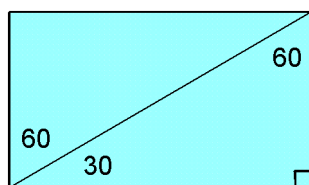
The full primary folding geometry of the bronze rectangle looks like this:



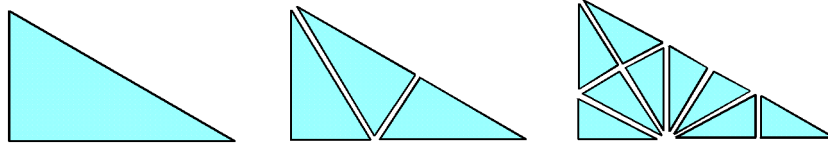
The bronze rectangle can be divided into three rectangles of equal area each of which is also a bronze rectangle. This process can be continued ad infinitum.



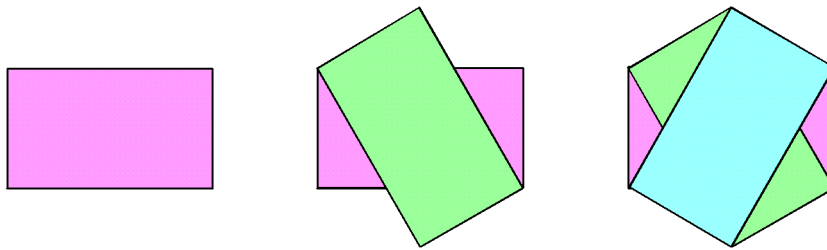
Dividing a bronze rectangle along its long diagonal produces a right angle triangle that can be called the bronze triangle.



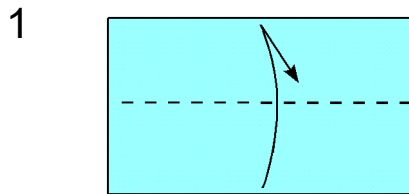
The bronze triangle can similarly be divided into three smaller bronze triangles.



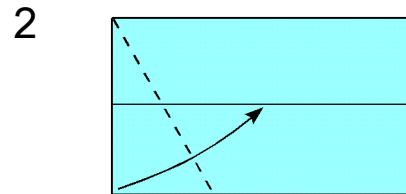
You can overlay three bronze rectangles to create a hexagon, like this:



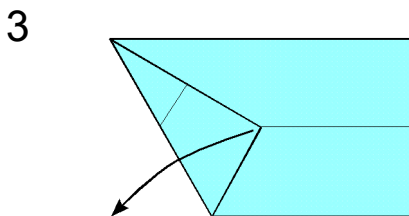
Division of the bronze rectangle into three smaller bronze rectangles can be achieved like this:



1. Fold in half downwards, then unfold.

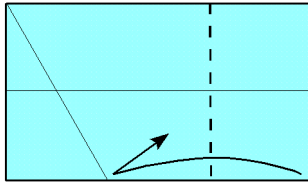


2. Fold the bottom left corner onto the horizontal crease, making sure the new crease meets the top left corner, which becomes sharp.



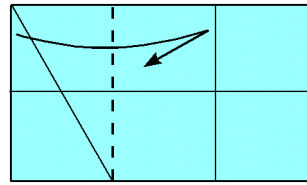
3. Unfold.

4



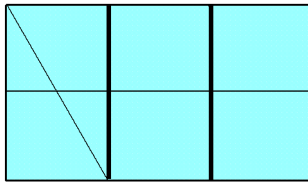
4. Fold the bottom right corner onto the point where the crease made in step 2 intersects the bottom edge.

5



5. Fold the left edge onto the crease made in step 4, then unfold.

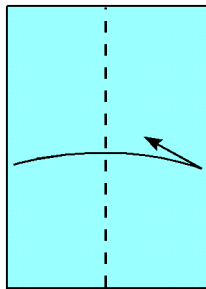
6



6. Cut along the creases marked with thick black lines to separate the three bronze rectangles. Two of these are not crossed by any creases.

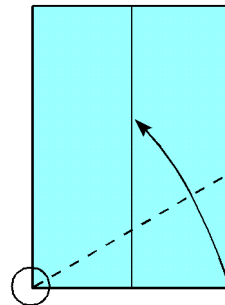
Constructing bronze rectangles from DIN size or US letter size rectangles.

1



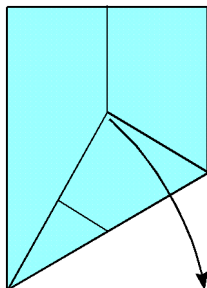
1. Fold in half sideways, then unfold.

2



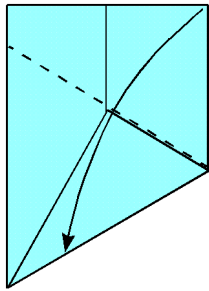
2. Fold the bottom right corner onto the vertical crease, making sure the new crease meets the bottom left corner, which becomes sharp.

3



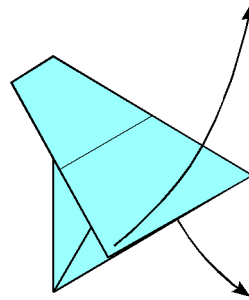
3. Unfold.

4



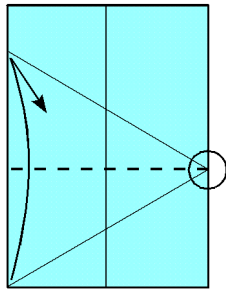
4. Fold the right edge onto the sloping bottom edge.

5



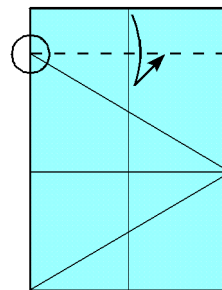
5. Open out completely.

6



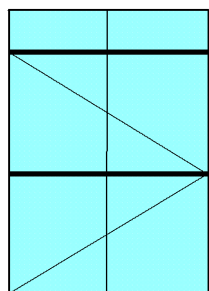
6. Fold the bottom edge upwards, using the point where the crease made in step 4 intersects the left edge to locate the fold, then unfold.

7



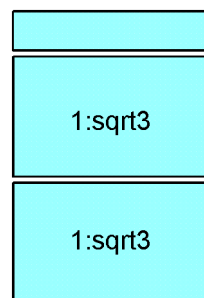
7. Fold the top edge downwards, using the point where the crease made in step 2 4 intersects the left edge to locate the fold, then unfold.

8



8. Cut along the creases marked with thick black lines to separate the three sections of the paper.

9

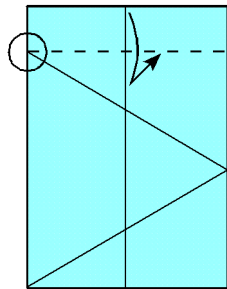


9. The lower two sections of the paper are both bronze rectangles.

## Constructing double bronze rectangles from DIN size or US letter size rectangles.

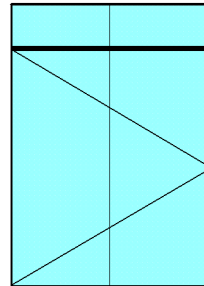
Begin by following steps 1 through 5 of the previous section.

1



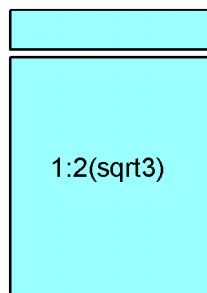
1. Fold the top edge downwards, using the point where the top sloping crease intersects the left edge to locate the fold,

2



2. Cut along the crease marked with thick black lines.

3



3. The lower section of the paper is a double bronze rectangle.

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