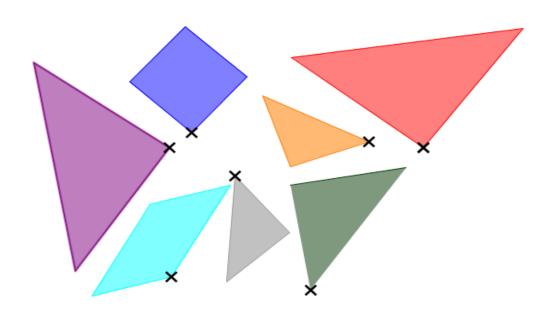
#### **ICT World**

# Dynamic puzzles and tangrams

Monika Schwarze Pestalozzi Gymnasium Unna

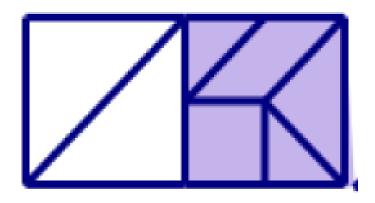
#### Example of a puzzle

Try to make a rectangle whose length is twice the broadth.



Click into the puzzle to try it by clicking into the puzzle



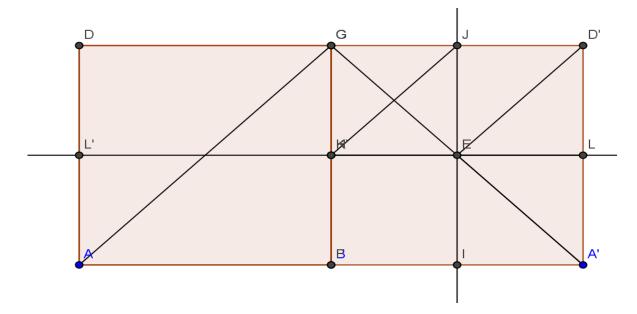


This puzzle of 7 pieces shall be constructed.

All pieces of the puzzle should be constructed so that they are movable and turnable in the GeoGebra plane.

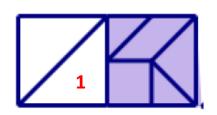
## Construction: step 1

Construct a retangle consisting of two squares. All edges of the 7 pieces have to be constructed (and remain stable when you drag on points A or B).





#### Construction: step 2



Hide all lines.

And now you construct a dragable and turnable copy of the triangle 1.

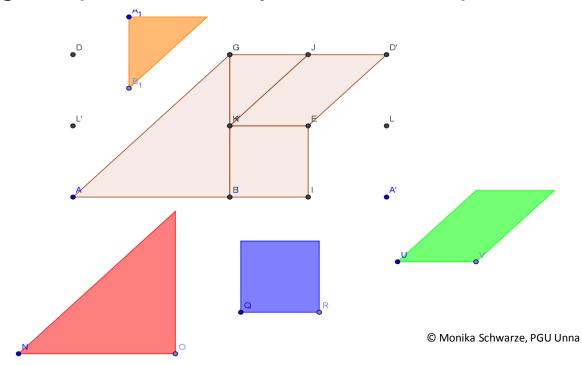
- Draw the triangle ABG with the command "polygon".
- -Draw then a stable polygon by clicking on A,B,G, A and then directly in the interior of the triangle ABG.
- -Then you get triangle 2. You can move & turn it!



### Construction: step 3

Construct the other parts in the same way.

Start e.g. for the square with points I and E so that not all points for dragging the pieces will lay at the same position.

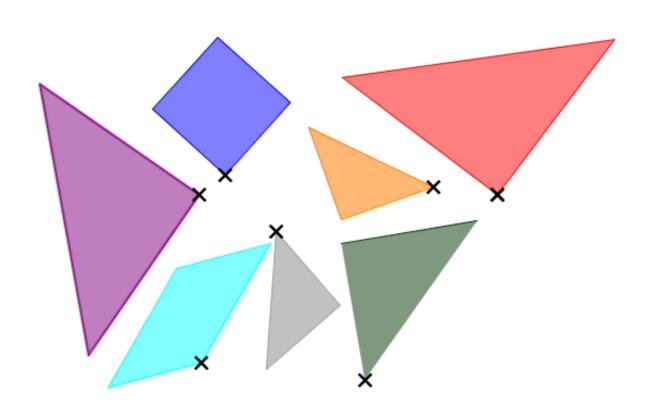


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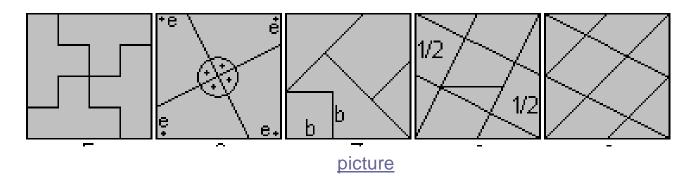
### Construction: step 4

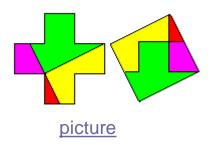
- Color all construced copies of polygons.
- Mark all points that make the pieces turnable with a big, black cross.
- Then hide all other lines and points.
- Change the position of the puzzle pieces by moving and turning.
- That's it!

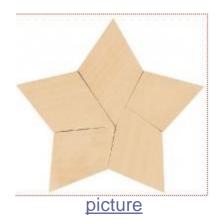
# This is the dynamic puzzle

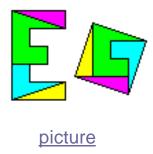


#### Ideas for your puzzle









Good luck and have fun!