## ICT World

## Dynamic puzzles and tangrams

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## 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

## How to construct?



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 $\mathrm{A}, \mathrm{B}, \mathrm{G}, \mathrm{A}$ 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.


## 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


picture

picture
picture

