

19. Eleonóra Stettner

WHAT WE LEARNED FROM THE CHILDREN?

The GEOMATECH project includes not only teachers' training and the development of teaching material, but also national competitions for Hungarians living in and outside Hungary. There were competition rounds for 9 months, and each round had a central topic. In some rounds the children's task was not to solve a traditional mathematical problem; instead, they could create freely using the tool system of GeoGebra. During the solution of these creative tasks the participants mobilized much deeper mathematical knowledge than they would have done with a traditional mathematical problem.

Seeing the children's solutions we can realize how many interactive possibilities GeoGebra contains for the illustration of the connection between mathematics and arts.

During the assessment of the solutions we considered the following aspects: the use of geometrical shapes, the use of geometrical transformations, the artistic overall impression, fun, humour and creativity, the use of more dynamic opportunities of GG. In the artistic overall impression we evaluated the harmony of the colours, and the aesthetic way of drawing geometrical shapes.

Dynamism as a criterion appears in the application of moving parts, in the preparation of animations and in the connection of shapes (if we move or change a shape, it results in the movement or change of the other shapes)

During the workshop, together we are going to make some creations of the free creative rounds, which are the most exciting, which used the most mathematical knowledge or utilized most the dynamic opportunities of GeoGebra.