

PROBLEMS ABOUT CONVEX SHAPES

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ABSTRACT

In this course we will discuss different problems about convex polygons and more general shapes. The theory of the convex shapes is very popular because it has a lot of applications in different topics, like algebra, geometry, number theory and e.c.

Firstly, I'm planning to discuss some general properties of convex shapes. Secondly, about Helly's theorem, some generalization and application of this theorem. If we will have enough time, it would be also nice to discuss the ways of using continuity in problems about convex shapes, isoperimetric problem and just some nice problems about convex shapes.

The course will be based mainly on problems. I will try to make it to the wide range of participants