Automatisches Beweisen

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Proofs in geometry

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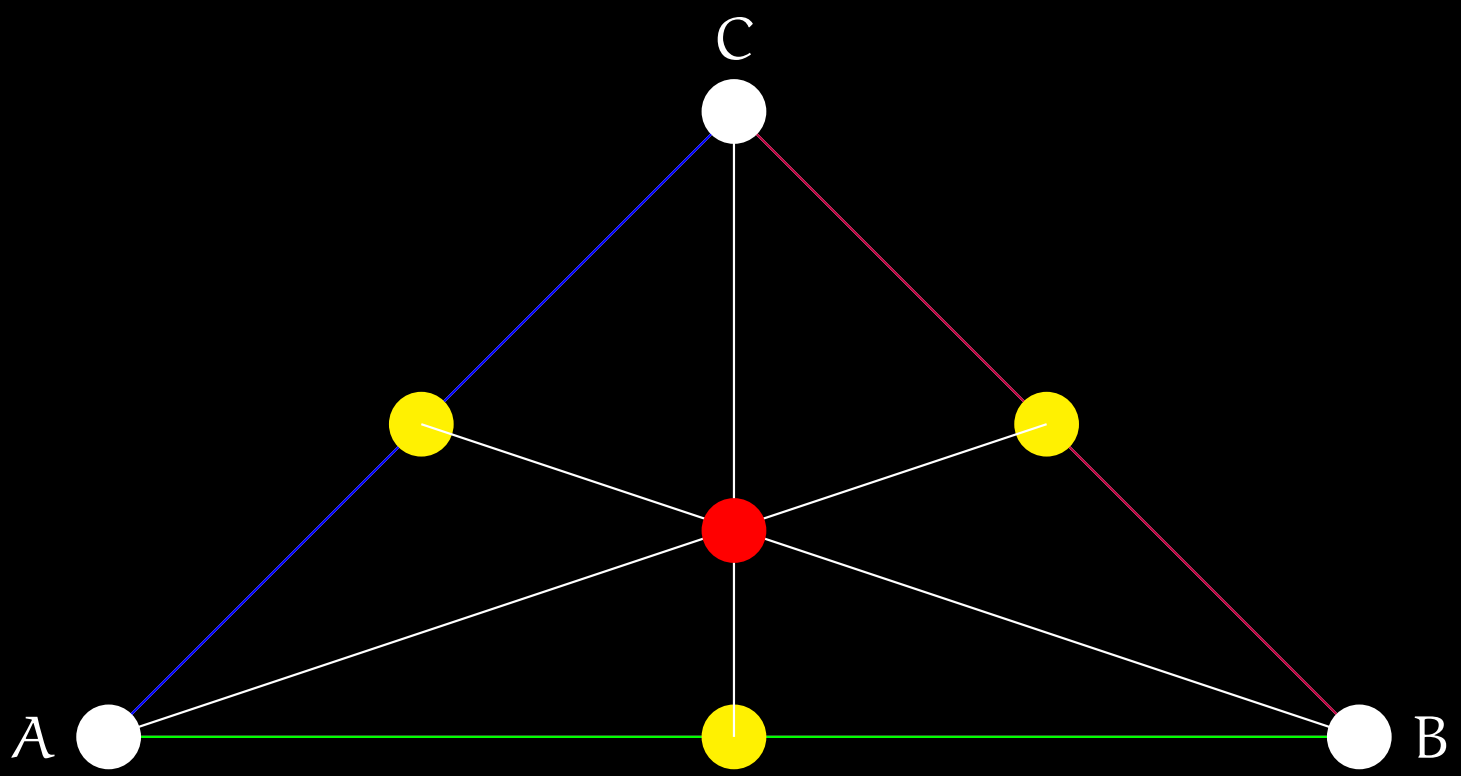
Several of these properties are fairly intuitive and we can convince ourselves that they hold by just looking at a picture...

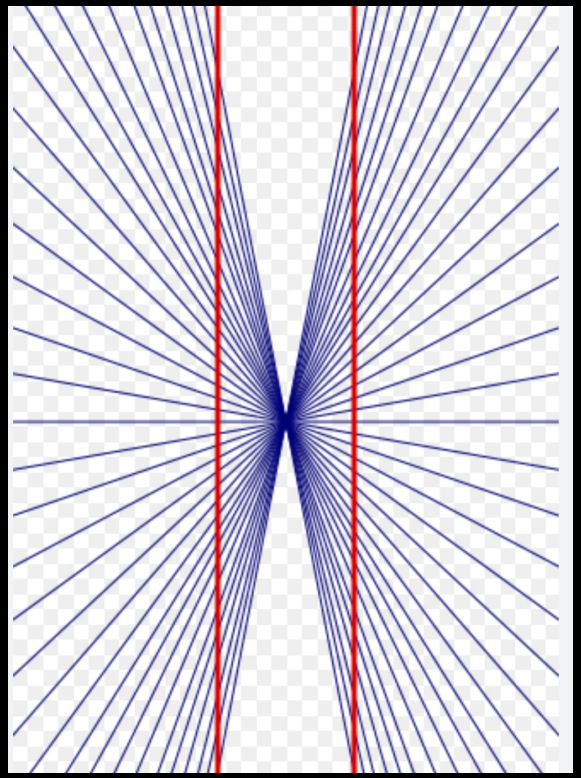
The center of gravity of a triangle



Proofs in geometry

Nonetheless, sometimes pictures might be misleading ...

Optical illusions



Proofs in geometry

We need a formal way of proving that something is true.

Better if it is automated...

What will you learn?

In this project you will learn how to prove or disprove a statement about plane geometry using the computer.

Course layout

PART 1 : What is a proof?

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PART 2 : Translating the task of proving a geometric statement into solving an algebraic problem.

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This part will be in English

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This was first proved by Bruno Buchberger

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PART 3 : Using SAGE to produce automated proofs of geometric theorems.

This part will be in German