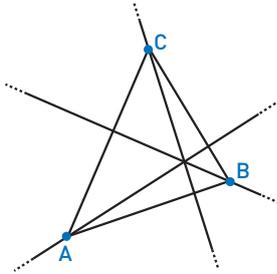


YOU & MATHS The three heights of a triangle

- a. Use dynamic geometry software to construct a triangle.
- b. Then construct its heights.
- c. Drag the triangle's vertices.
- d. What do you notice?

a. and b. Your triangle will look something like this.



c. and d. No matter whether the heights meet «inside» or «outside» the triangle, they are always concurrent, that is, they all three intersect in a point. This is an invariant property that you can see in your dynamic geometry file and it can be proved by a formal geometric proof.