

Math Circle Problems for week 1

Welcome back!! As a start we have some "easier" problems for you to adjust:

1. We showed in the meeting, that the 3 line bisectors of each triangle intersect in one point. Using this we showed that the 3 altitudes also intersect in one point. For you is left to show that the 3 angle bisectors intersect in one point and that the 3 medians intersect in one point.

2. Now let M be the intersection point of the 3 medians, H be the intersection point of the 3 altitudes, and O be the intersection point of the 3 line bisectors of a triangle ABC . Prove that M, O and H are collinear - they form a line called Euler's line.