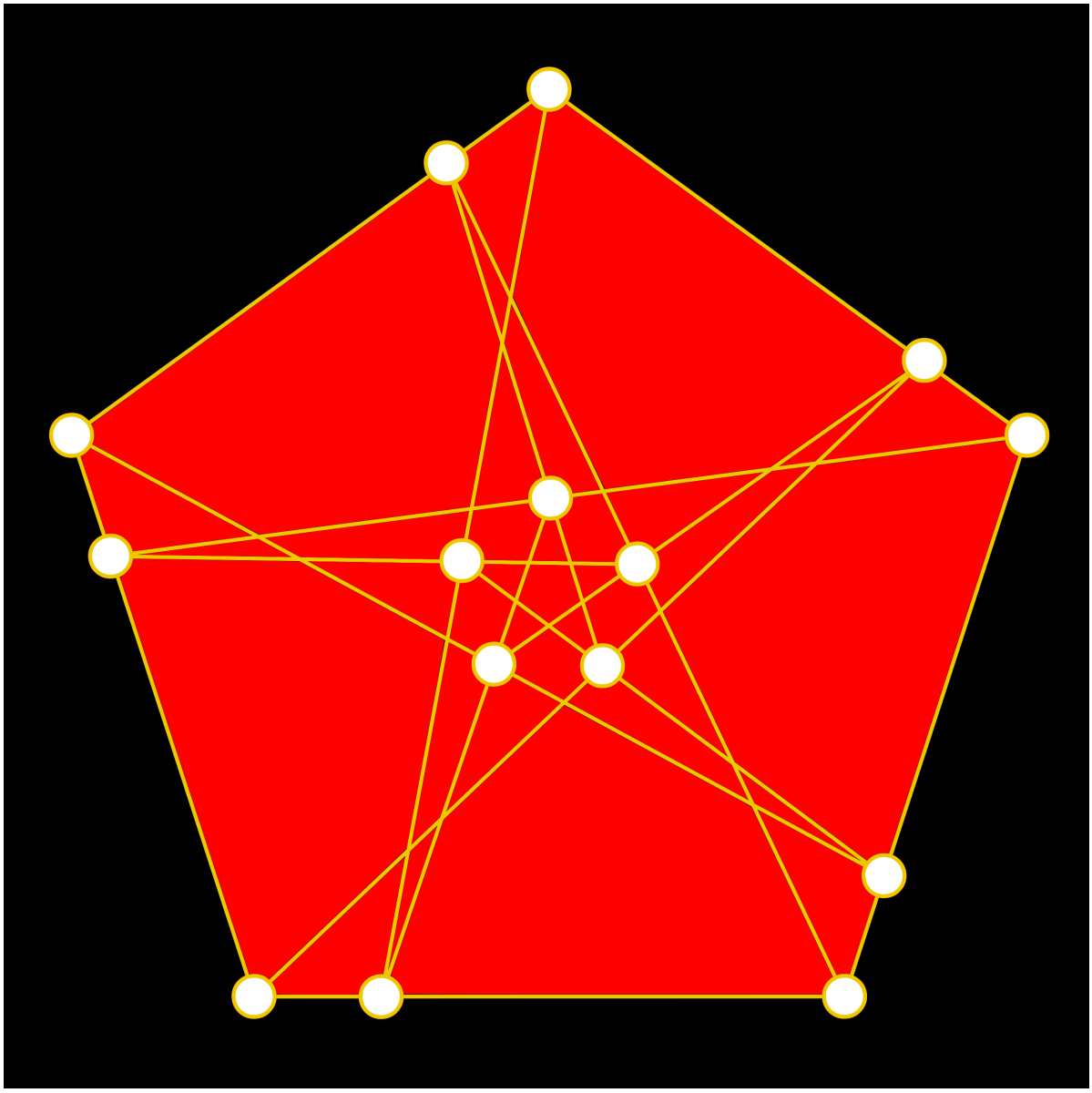
# Riddle $18^{+}$



The given 5-fold rotationally symmetric figure in the usual Euclidean plane sports 15 collinear triples of points. As drawn, TG is horizonal while ER is very slightly inclined.

Is it possible to straighten this out as follows? Keep 10 points on the perimeter, while maintaining symmetry and the collinearities!

Either find the side ratio of the two ensuing shells of vertices or prove that such a straightening does not exist.