

FILL THE GAP!

GeoGebra Action Package (GAP) for the ADVENTURES ON PAPER exercise book

George Hart: "Slide-Together" Geometric Paper Constructions

Exercise: construction of pentagram template in Geogebra

1. Construct a golden triangle in any size (golden proportion and construction in golden triangle Castera1.ggb file)
 2. Construct a circumscribed circle around the triangle
 3. Halve the angles on the triangle's base. The angle bisectors are excising the regular pentagon's two additional vertices. (The other vertices of the pentagon are the 3 vertices of the triangle)
 4. Construct the pentagram by drawing the diagonals of the regular pentagon
 5. The starting point of the cut divides the pentagram's edge in the proportion of the golden ratio. The ratio is most easily obtained by central stretching in the golden section's ratio. The length of the cuts can also be constructed by central stretching in ratio of the golden section. It is sufficient to construct just some of the cuts on the above mentioned way. The other cuts can be obtained by rotating the center of the circle around circumscribing pentagon.
1. Point 'A' 6 can be freely moved.

