Proposition IV.2
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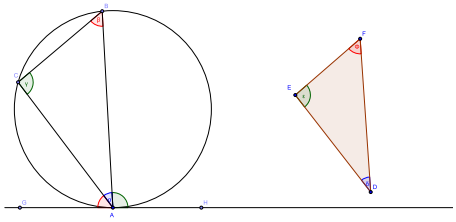

Prop IV.2: In a given circle, to draw a triangle equiangular to a given triangle
-Let ABC be a circle
-Draw the tangent line to the circle at A, call it GH
-Construct $\angle HAB = \epsilon$, with point B on the circle (I.23)
-Construct $\angle GAC = \phi$
-$\gamma = \angle HAB$ (III.32)
-$\gamma = \epsilon$ (c.n.1)
-$\beta = \angle GAC$ (III.32)
-$\beta = \phi$ (c.n.1)
-$\alpha + \beta + \gamma$ is equal to two right angles, and so is $\delta + \epsilon + \phi$ (I.32)
-$\alpha + \beta + \gamma = \delta + \epsilon + \phi$
-Subtracting from both sides, we find that $\alpha = \delta$
-QEF