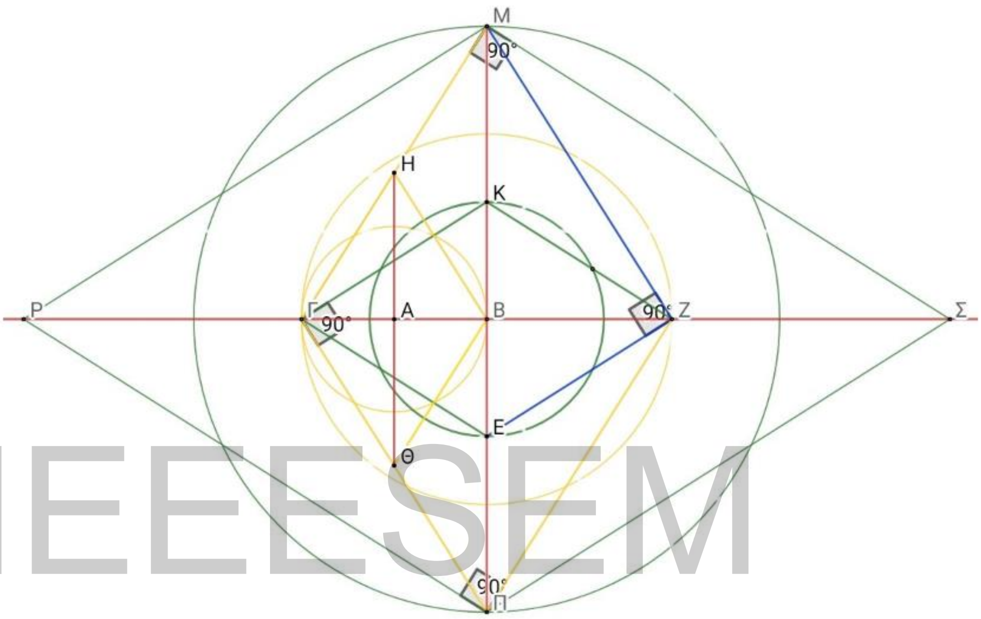
IEEE SEM

Attempt to square the circle according Euclidean geometry

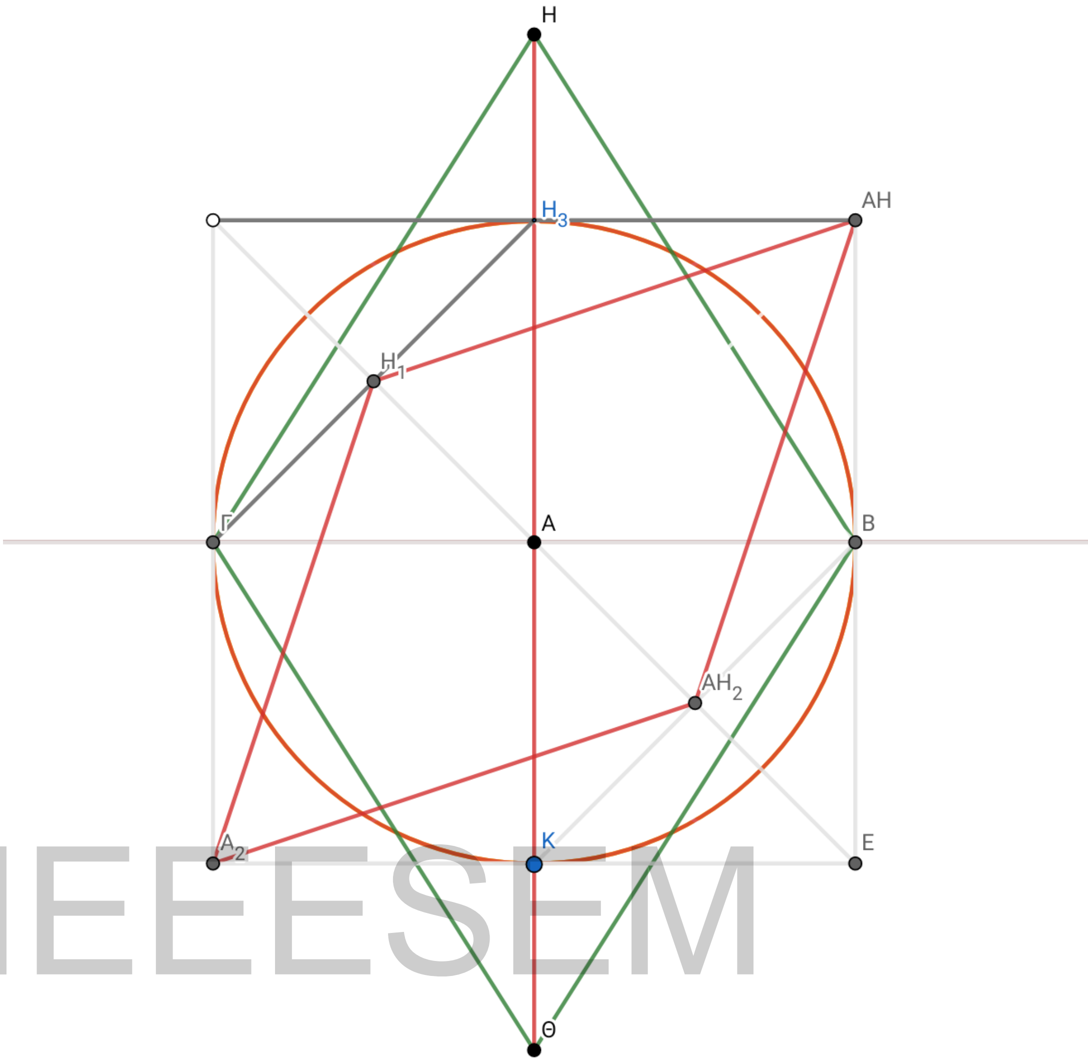
υπ, Dimensio circuli



Develop of circle and rhombus of same center and area in squares (1), (4÷X)^2) , (4), (X^2) with 3×90° rotation. X=MΠ= perimeter of first circle. (squares are self-explanatory, of the same center, sides equal as each diameter of each circle.)

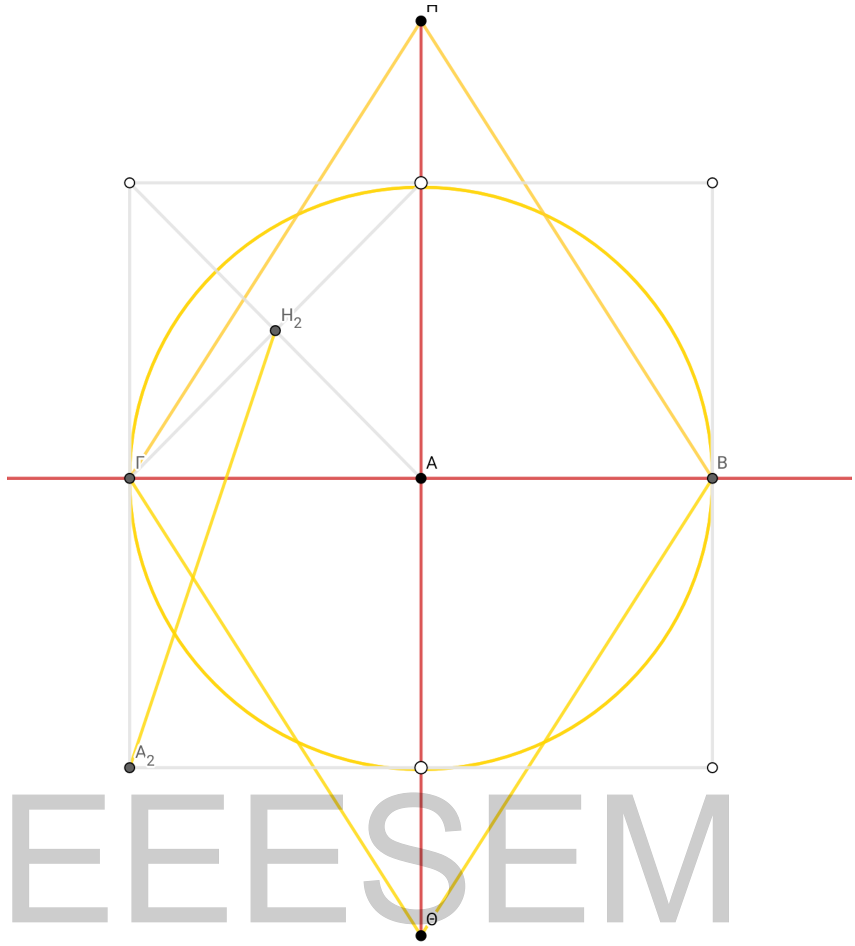
Attempt to square the circle with ruler and compass, according to Euclidean geometry. Assumption HA, verification BE.

Work, construction and theory, research. Georgios Bouras.

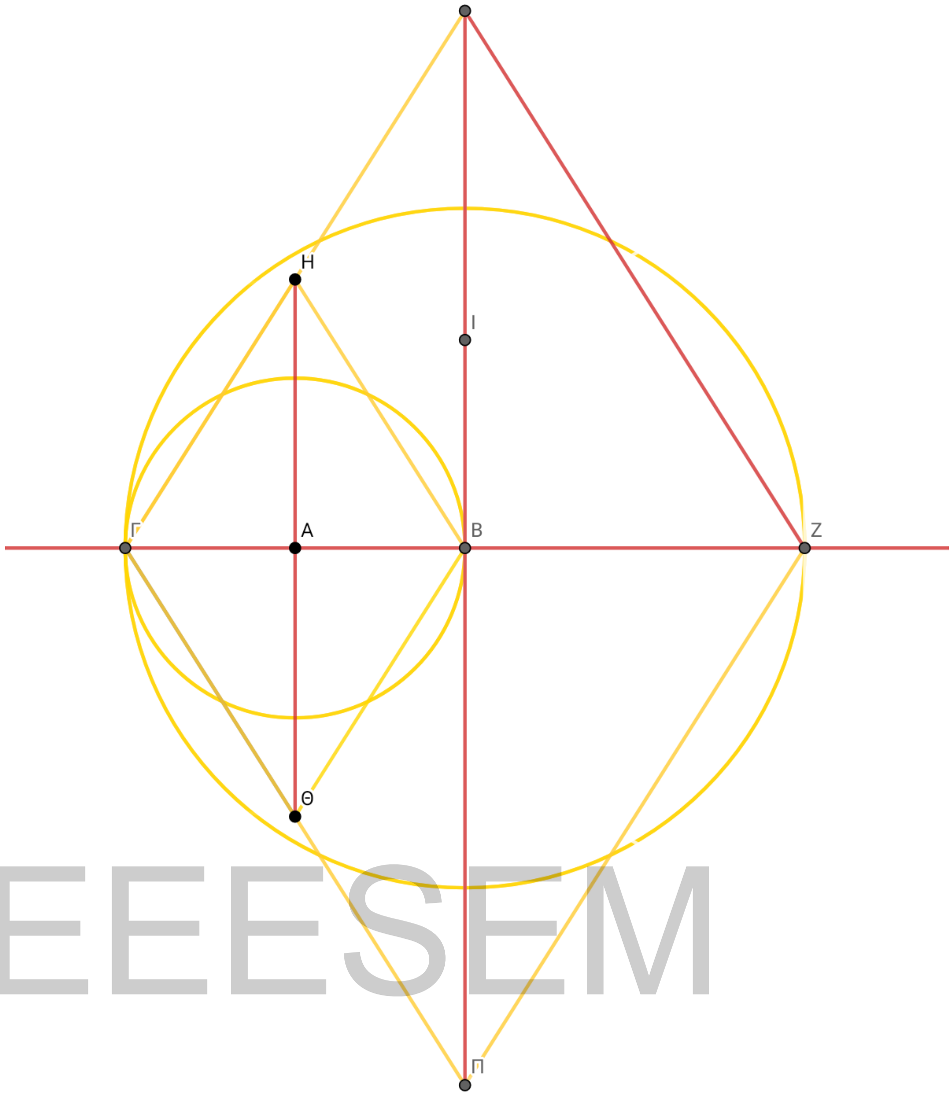


Perimeter and area of each circle with ruler and compass only

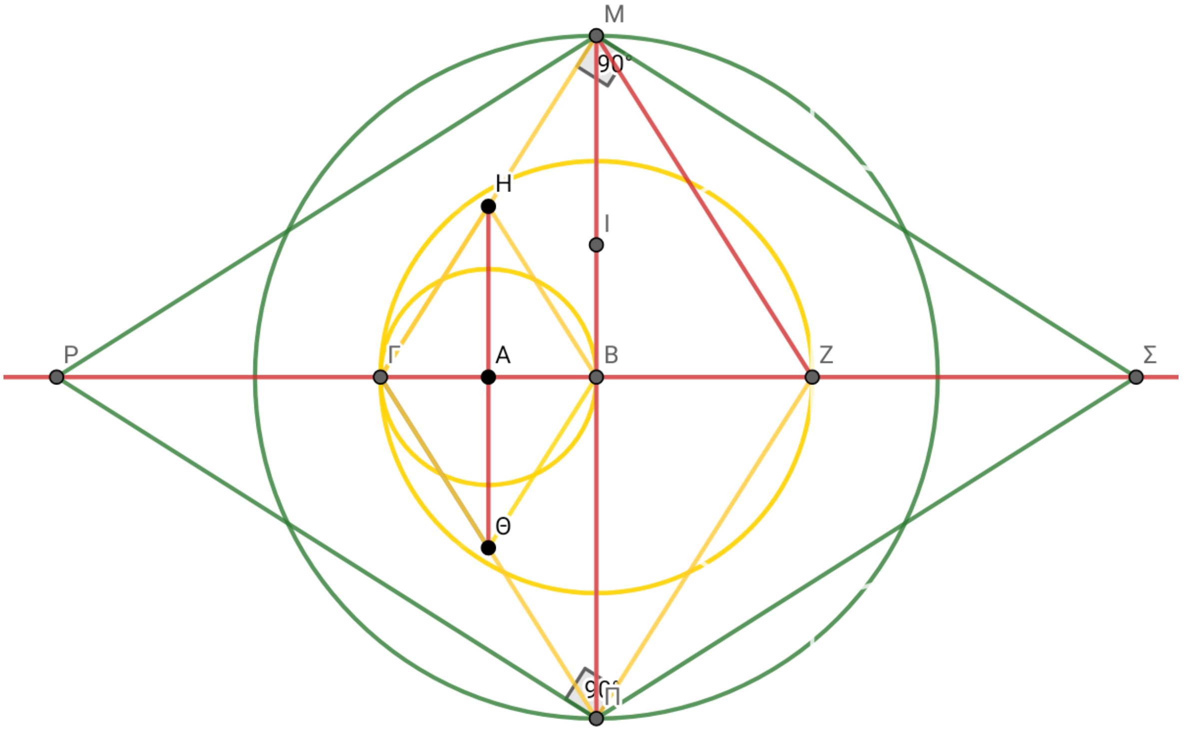
CONSTRUCTION STEPS



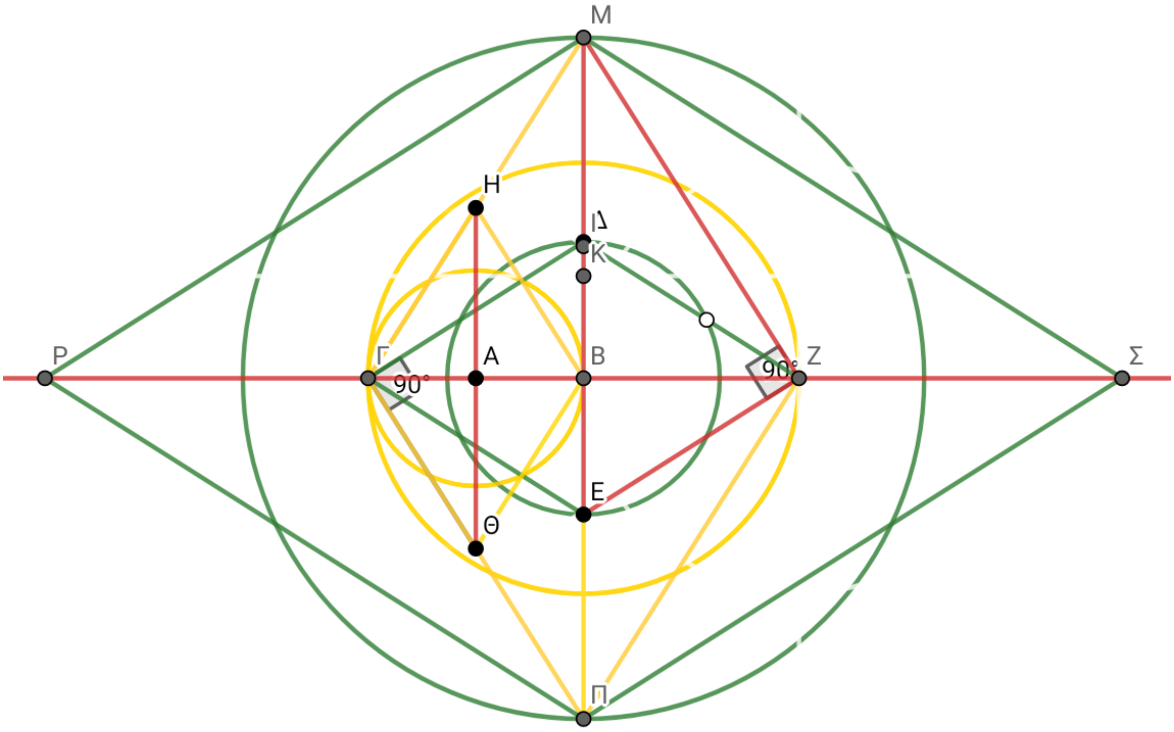
HA^2 = (3/4)^2+(1/4)^2. HA×4=μπ.
(ΓB×HΘ)÷2 = area1 = HA. =1/4 μπ I place
it perpendicular to ΓB in the center A and
correspondingly I place AΘ ... and I have
Small diagonal ΓB=1 and large diagonal
HΘ= ½ of the circumference of the circle.
And I place the sides of the rhombus.



ΓΒ × √4 = ΓΖ. I move the axis and double to ΓΖ . I extend ΓΗ to the vertical axis at M and correspondingly all the sides and double ΗΘ to ΜΠ. ΗΘ × √4 = ΜΠ. area2=ΜΠ



$M\Pi$^2/2 = $P\Sigma$. Area3= $M\Pi \times M\Pi$^2)/4 from ΓΜ I bring a perpendicular from M to the horizontal axis to Σ and accordingly draw all its sides



MZ^2= MB^2 + BZ^2 . MZ^2 ÷ MΠ^2/4= ZE^2. ZE^2 - BZ^2 = BE^2 MΠ ÷ √(MΠ^2/4)=ΓZ =2)και ΓZ ÷ √(MΠ^2/4)=KE= 2ΓZ/MΠ (of perimeter 4 and an area equal to diameter 4÷MΠ). 2ΓZ÷KE=MΠ=4HA. I bring a perpendicular from MZ from Z to the vertical axis at point E and draw a diameter and respectively all the sides.

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