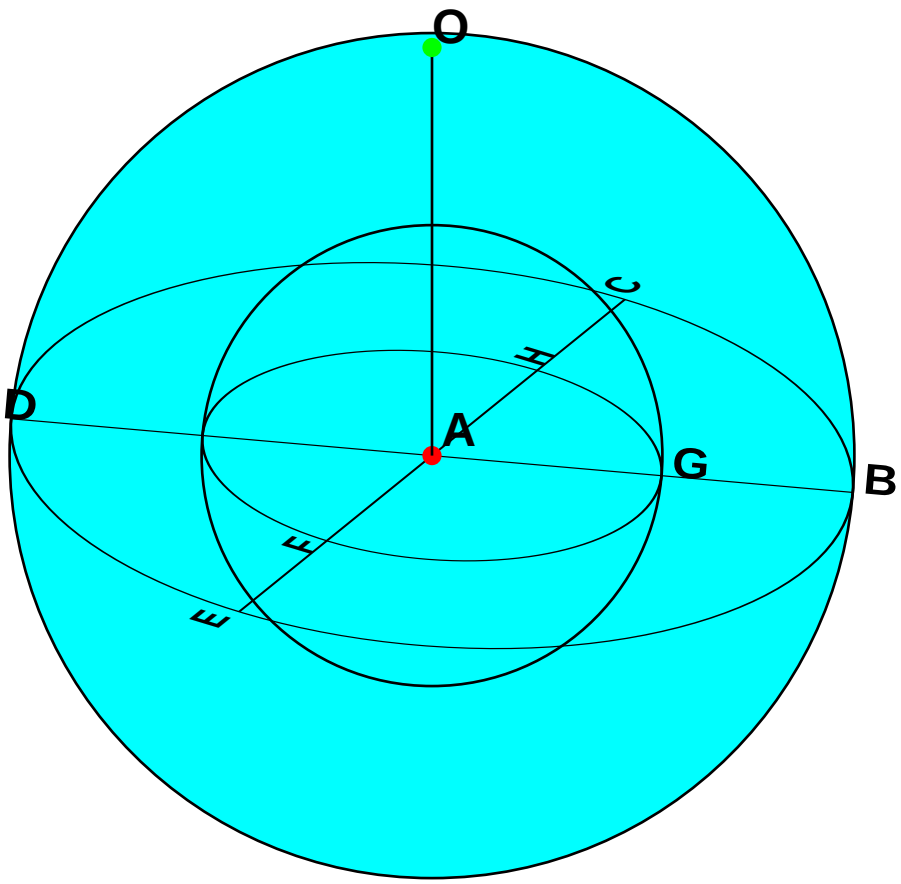
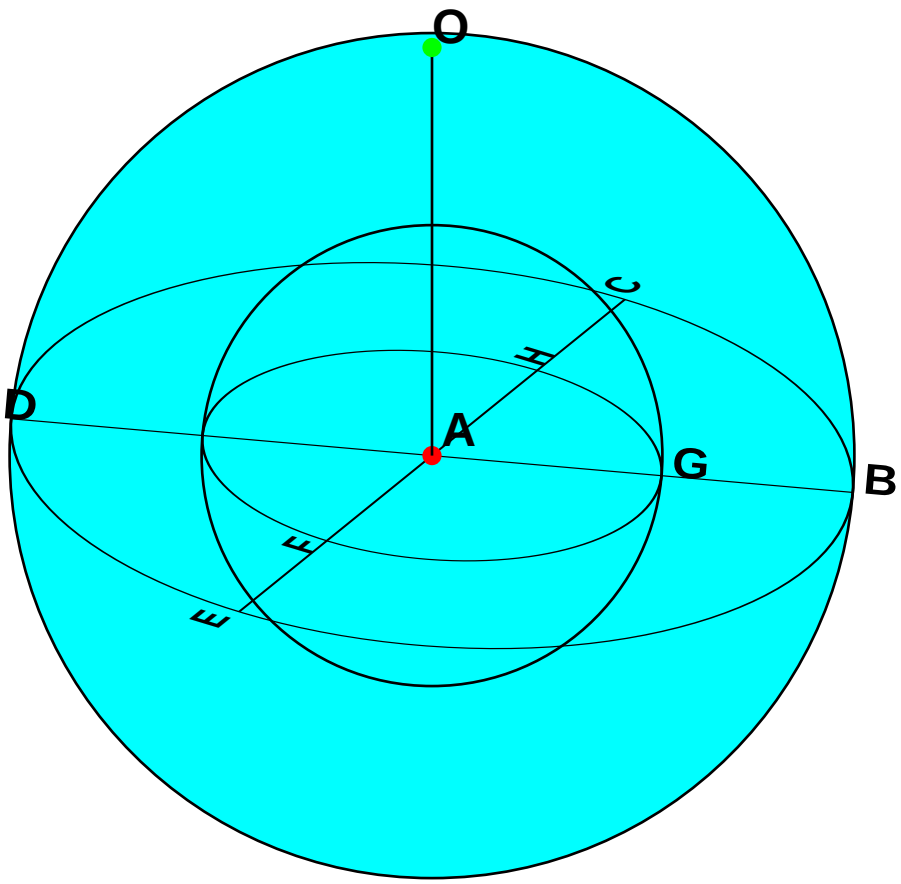
Two sphere:

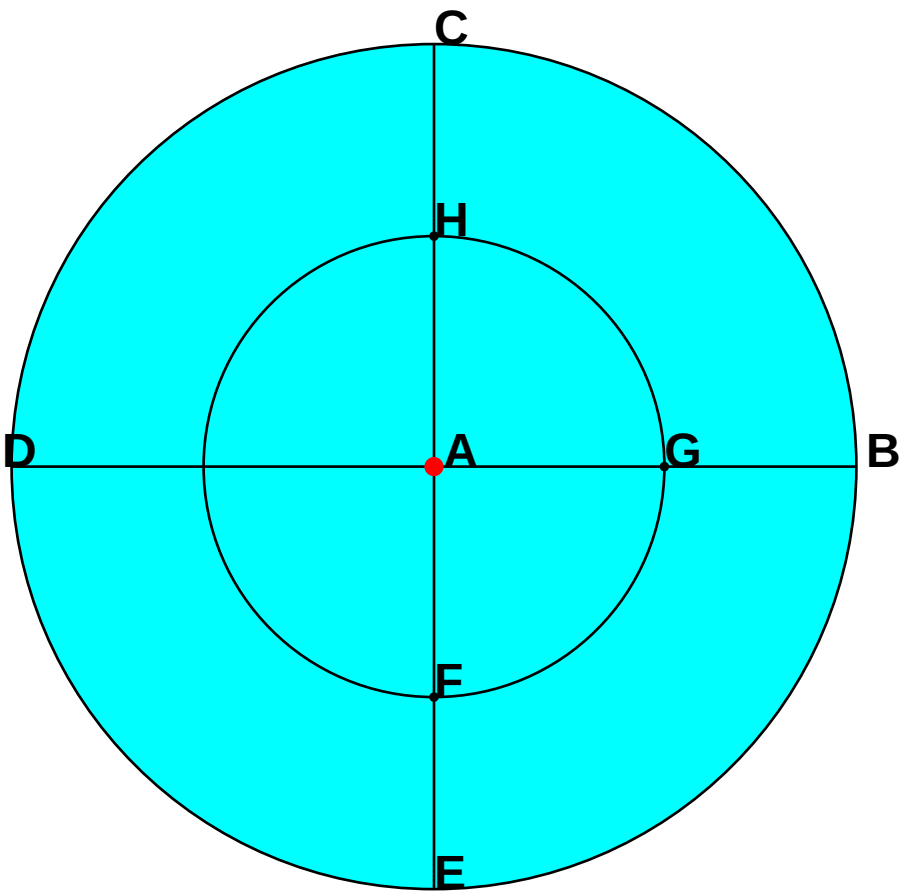
A large sphere OBCDE and a inner small sphere FGH



See from top into the spheres, we get two cycles

with same center A: Cycle BCDE and Cycle FGH

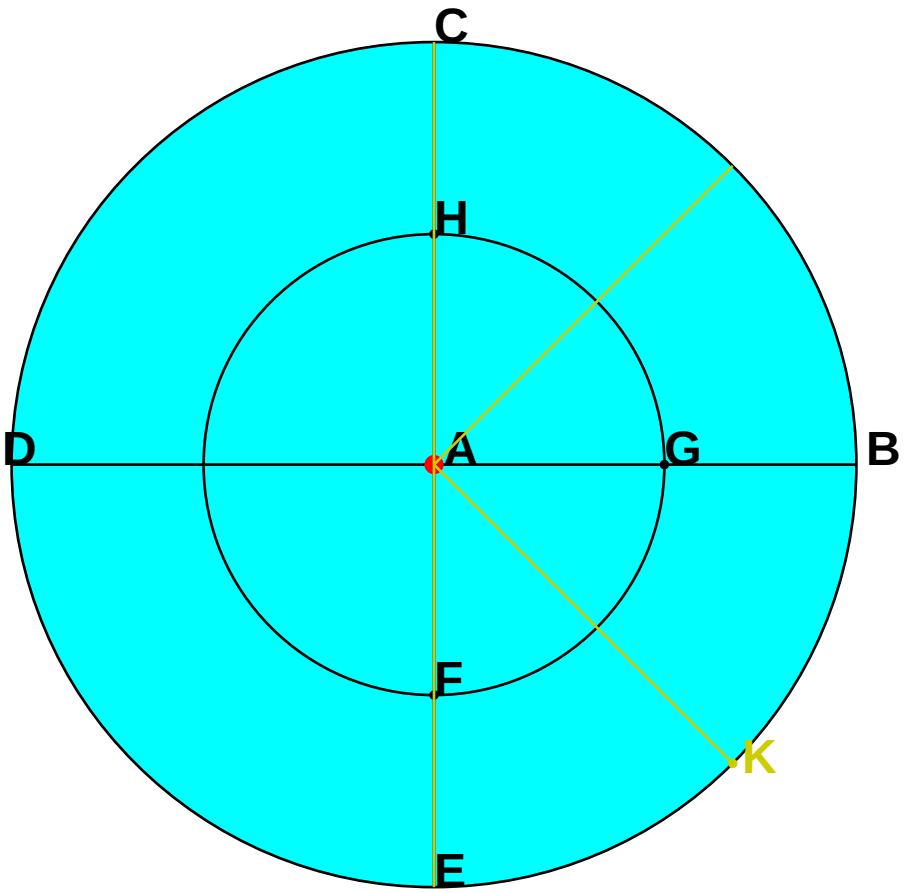


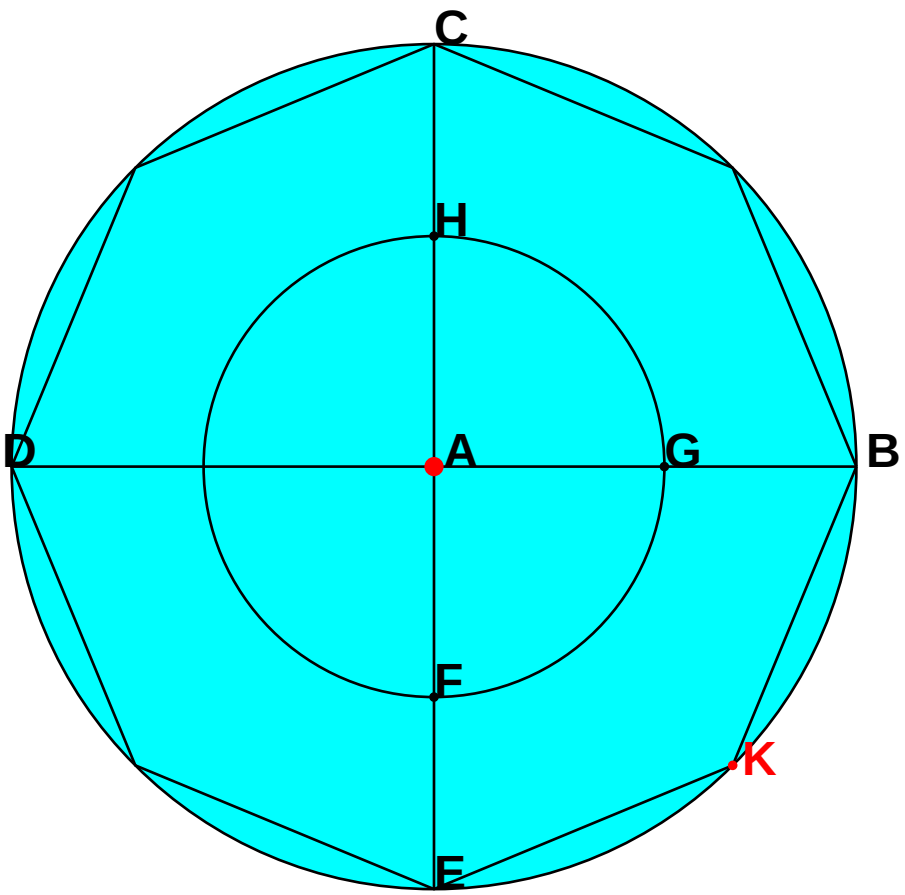

C
H
D
A
G
B
F
E

by Proposition 16 proved previous, we can inscribe

in the greater circle BCDE an equilateral polygon with an

even number of sides which does not touch the lesser cycle FGH




C
H
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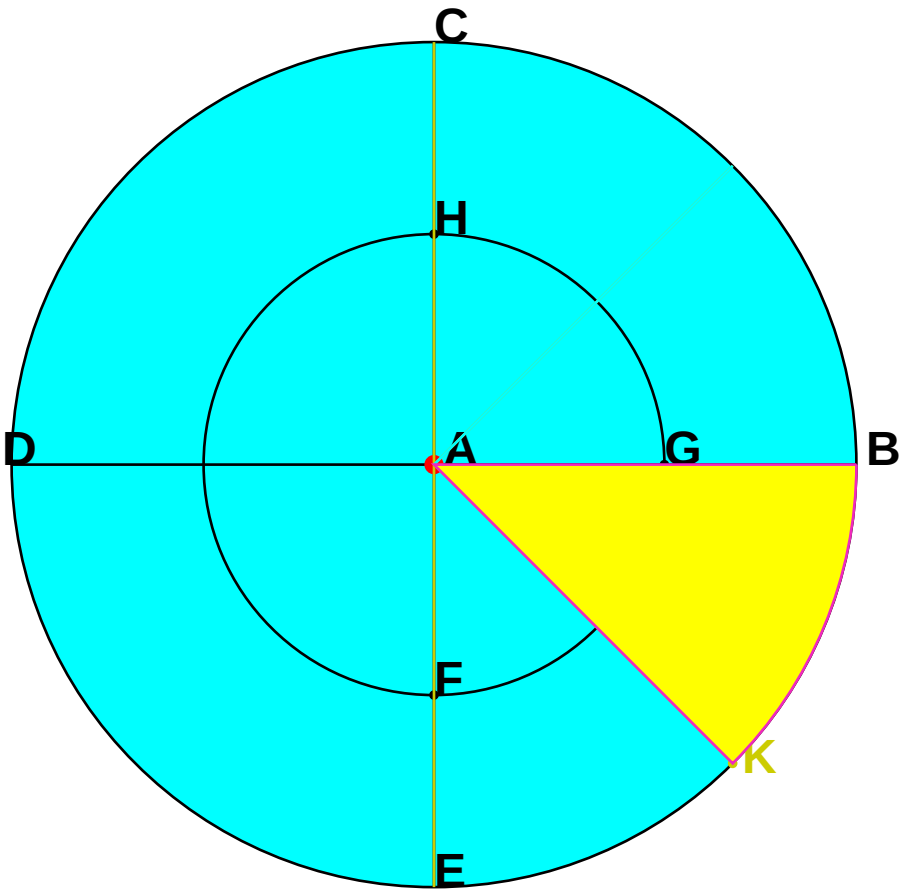
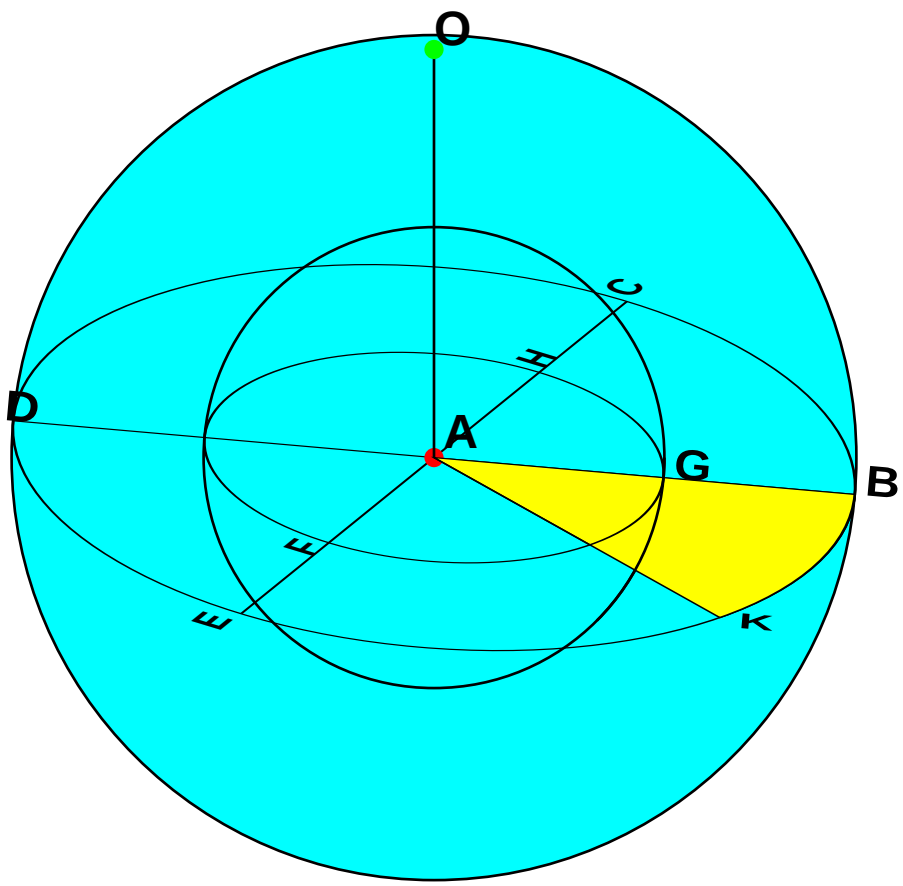
A
G
B
F
K
E

Next step, we translate the slice of AKB back

to the initial spheres graph

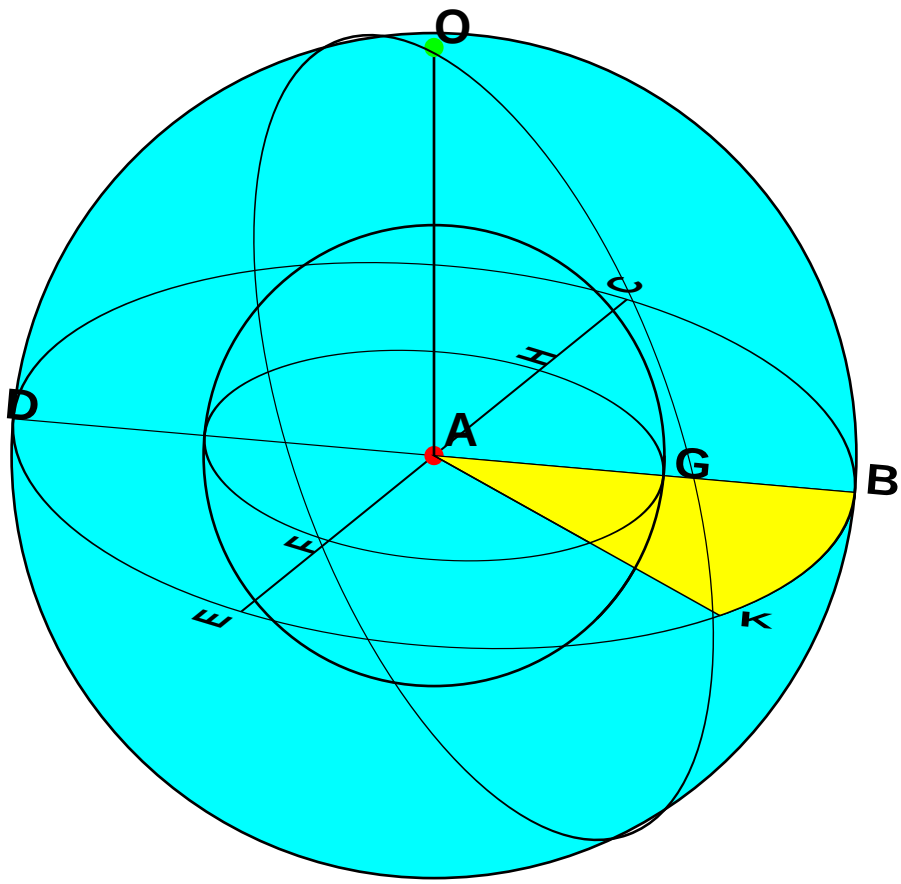


Translating ...


O
C
H
D
A
G
B
F
E
K

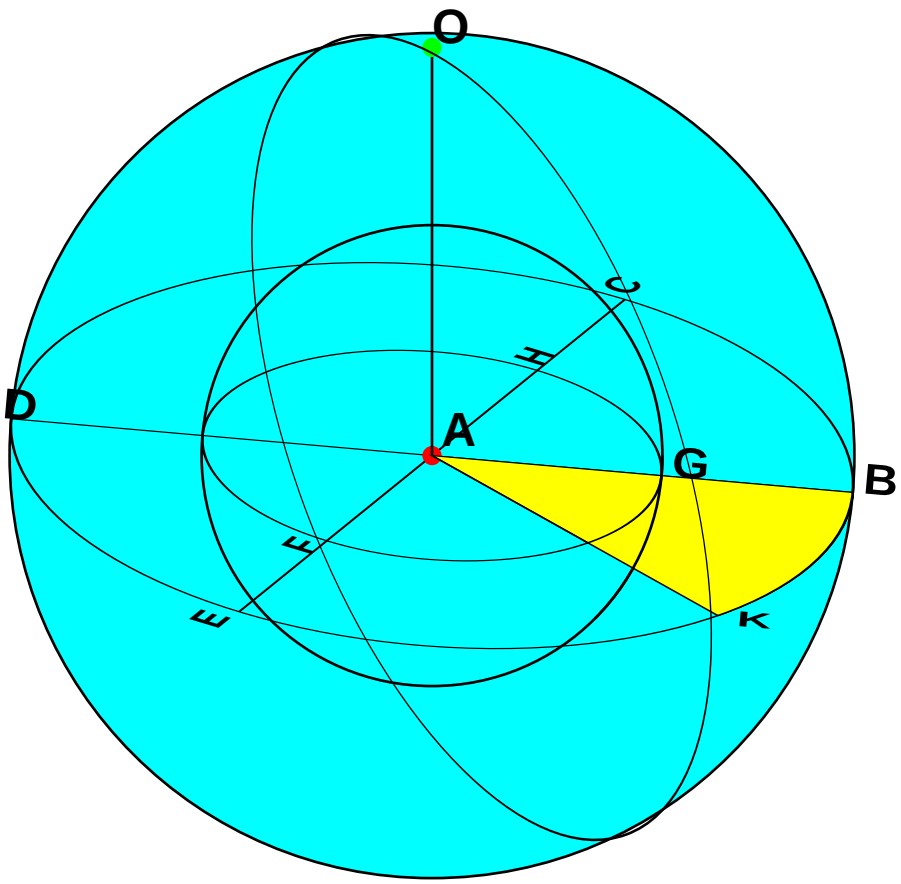
Next, we draw the largest cycle through ptr O

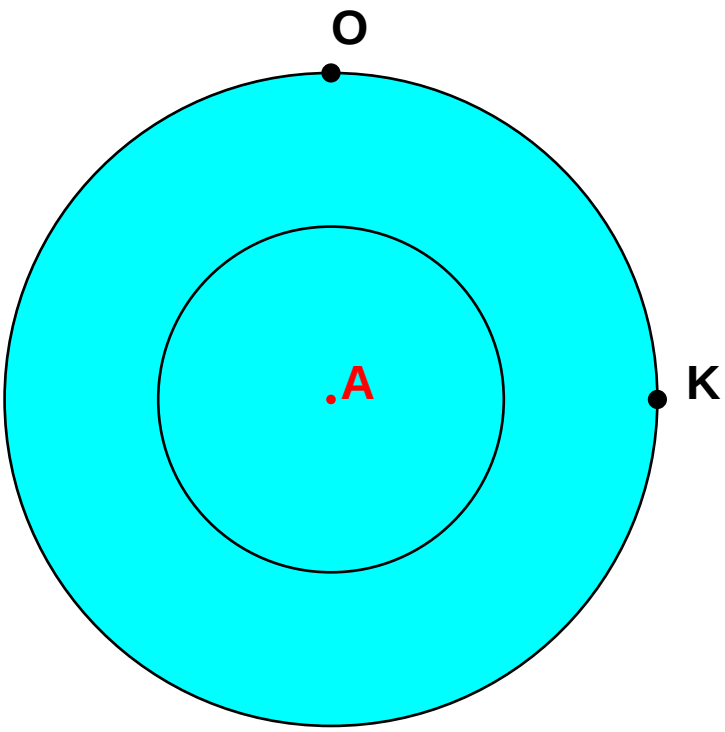
and ptr K on the surface of the larger sphere OBCDE



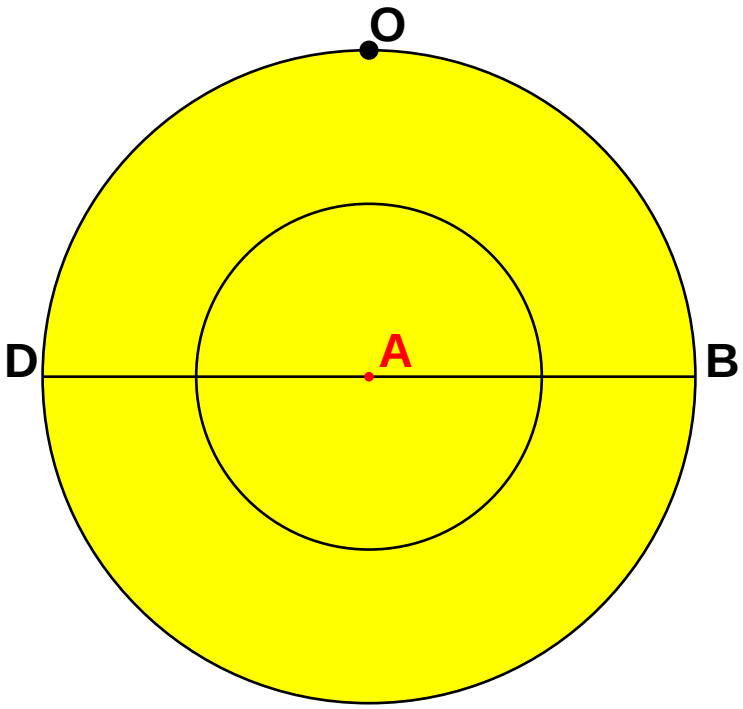
From the side view, we get two cycles from this graph

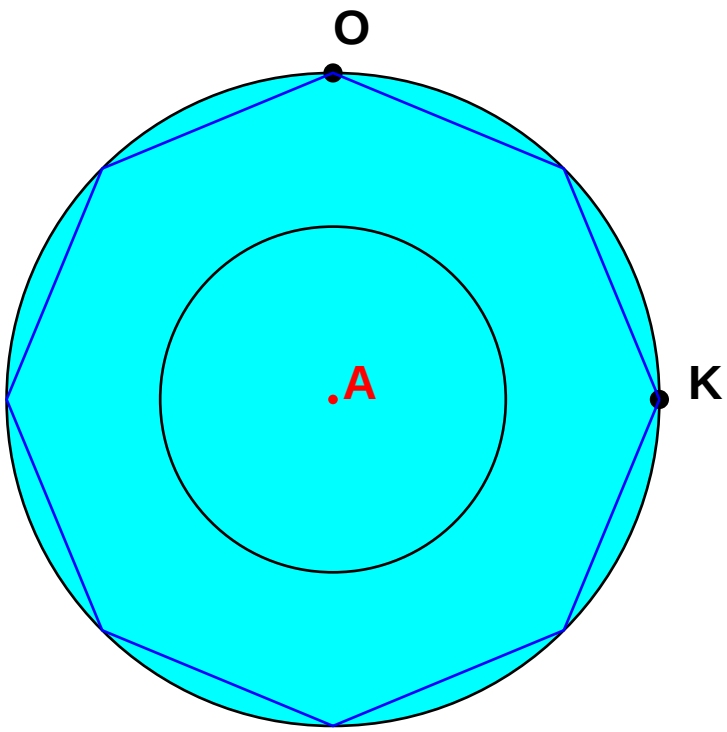
Cycle KO and cycle BOD, the plane through which also intersect with the inner sphere as a smaller inner cycle

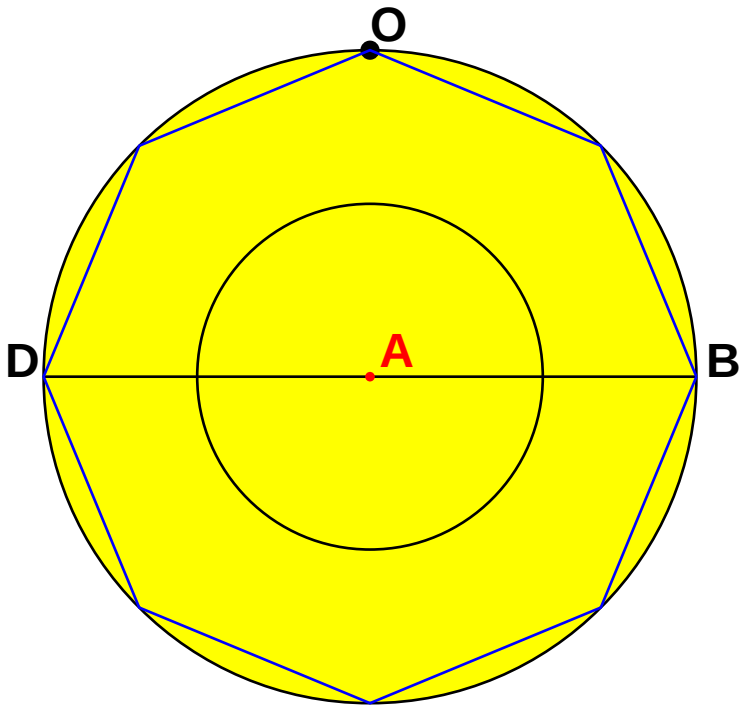




Side View:

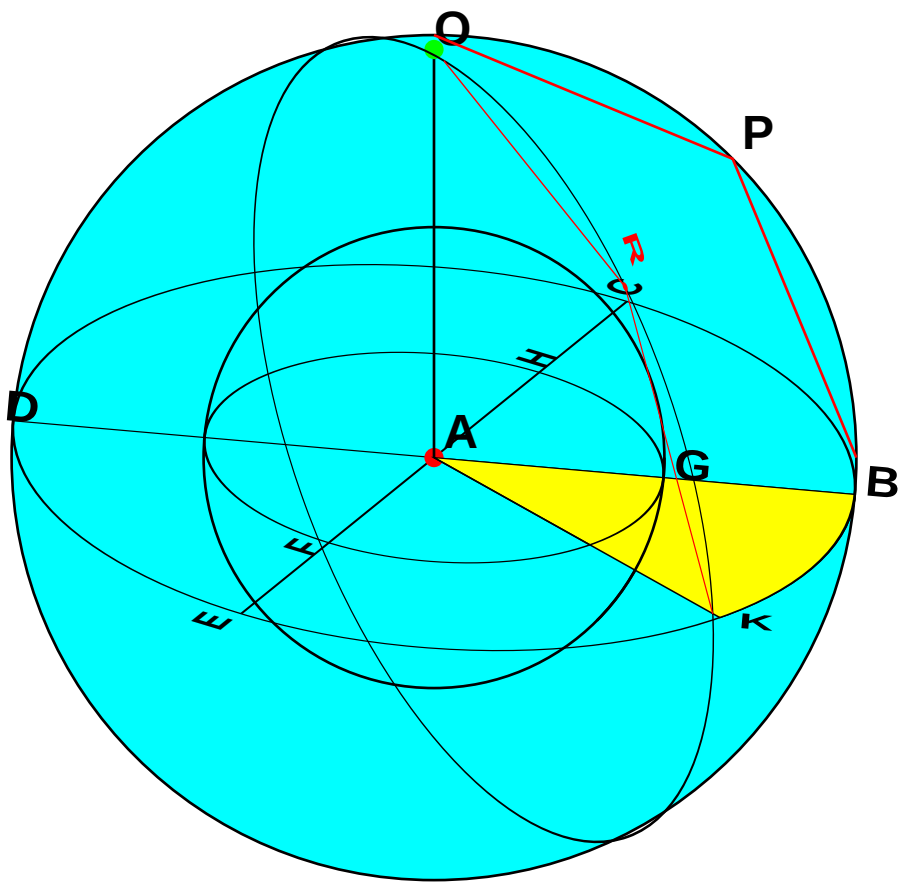






Similar, with Proposition 16, we can also get the equilateral polygon that does not touch the inner cycle for each of these two graphs

Similarly, Tranlating part of the polygon back to initial graph ...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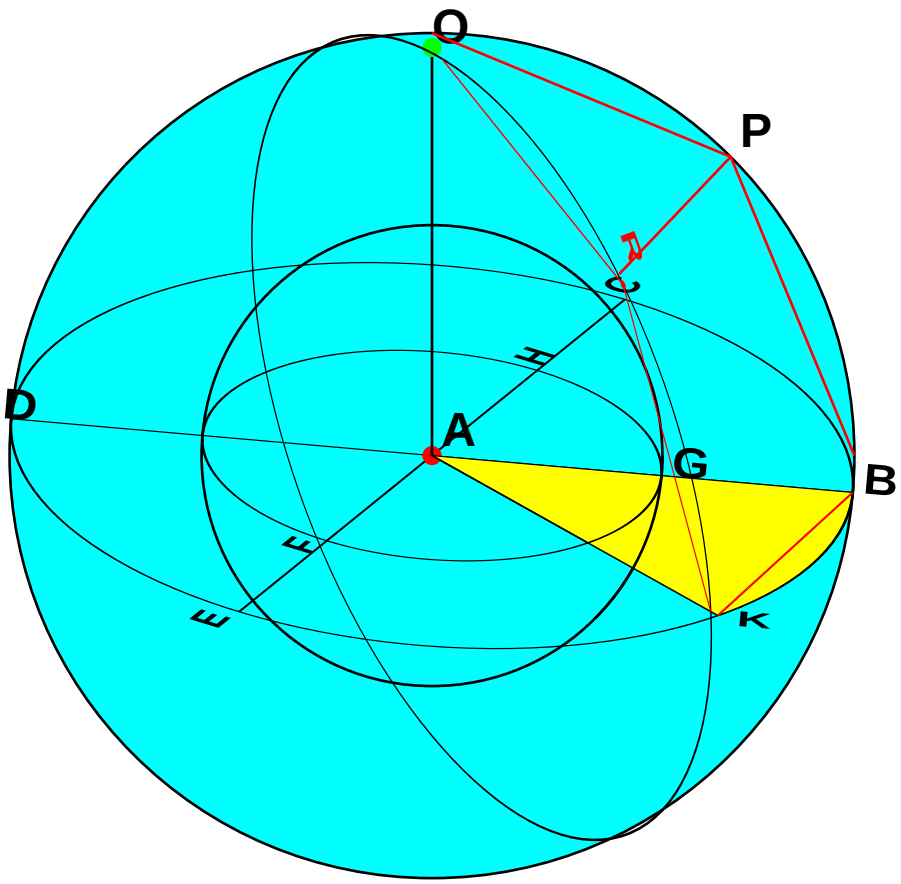
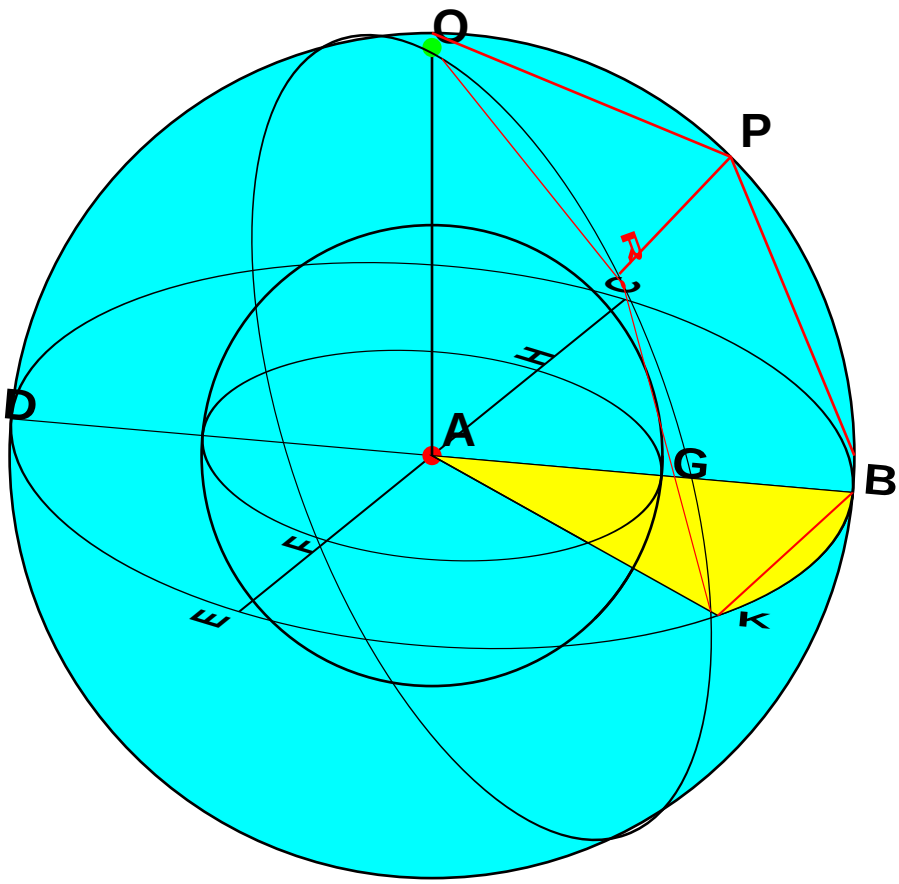
Connect BK, PR; seen from the graph,

We get the polygons: BPRK, and POR

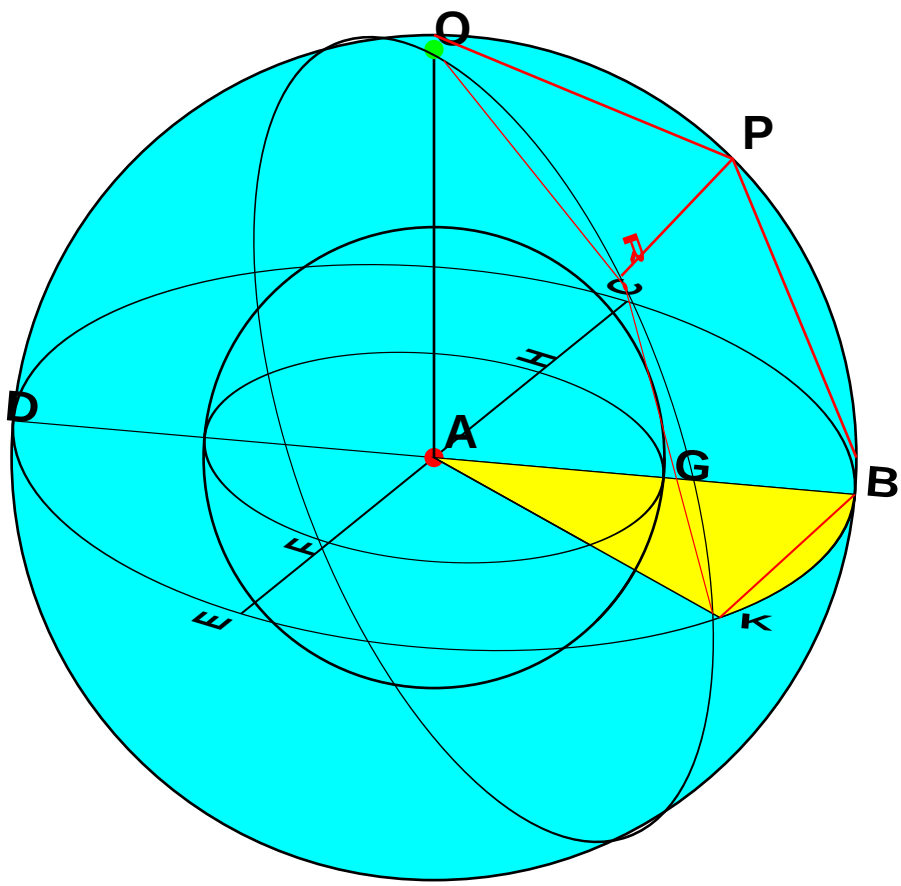


Since KR does not touch the inner intersect cycle. hence, KR does not touch the inner sphere. so do PR, PB,and BK.

The graph is symmetric, hence, we get one face (BPRK) of a polyhedral solid inscribing the greater sphere, and this face does not touch the inner sphere



Same reason, polygon POR is another face.



Construct the soild with faces like these two,

Finally, we get a polyhedral soild inscribing the larger sphere

but not touch the inner smaller sphere

End