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THE SPATIAL INTERPRETATION OF A THEOREM OF THE ANGLE PROPPED AGAINST A DIAMETER OF A CIRCLE

Theorem:

Three spherical surfaces intermingling one another determine two triple planes perpendicular to each other: $(\alpha \perp \beta \perp \gamma)$ and $(\alpha^0 \perp \beta^0 \perp \gamma^0)$, if the edges formed by homonymous pairs (α, α^0) , (β, β^0) , (γ, γ^0) , constitute the diameters of these spherical surfaces and cross two points of their intermingling P and P^0 .

Evidence:

We construct a triangle. We determine the diameters of circles. We define the joint chords the point of their intersection.

In the spatial interpretation we obtain a pyramid with a triangular base and a vertex at a point of the intermingling of spherical surfaces constructed on circles being their great circles. Angles propped against their diameters for which the vertexes constitute the points of spherical surface are right angles. Hence, the conclusion that the planes crossing the vertex of a pyramid are a rectangular arrangement.