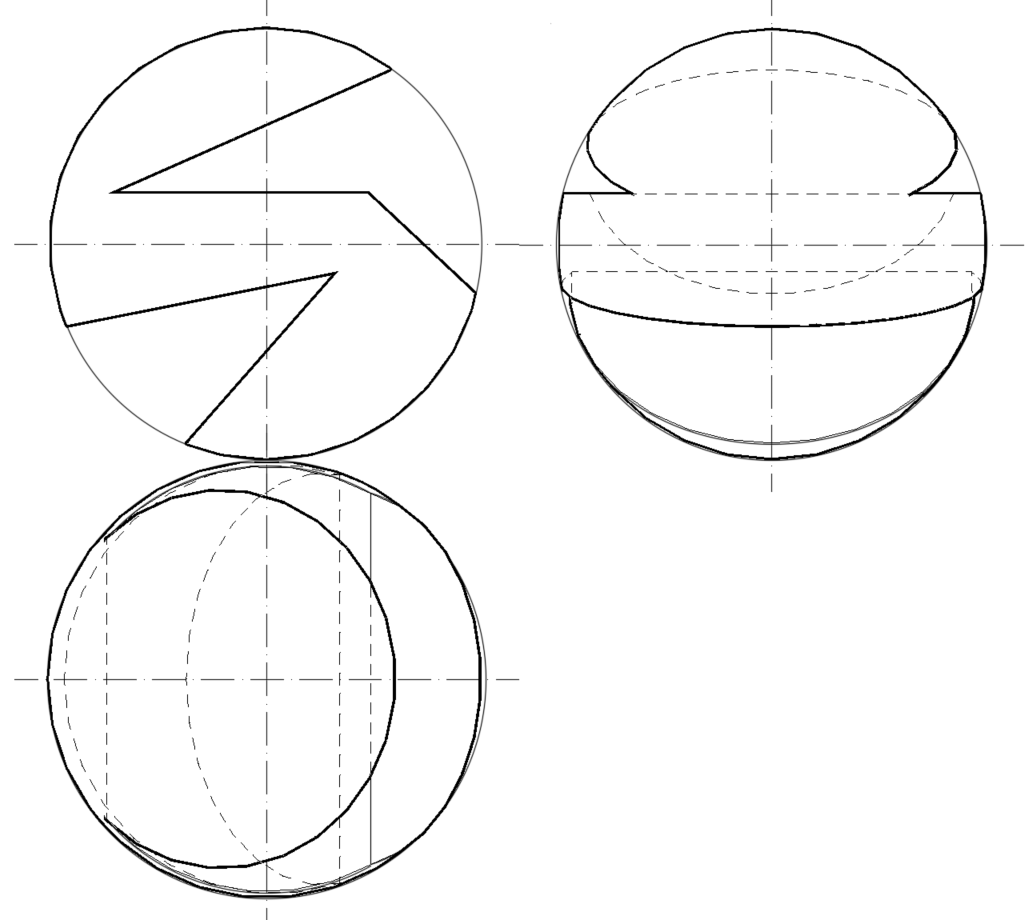
***Result:***

Frontal, horizontal and profile projections of the sphere cut with 5 planes (A3 size, scale 1:1)



Answers to questions 1-4:

1. Following pairs of the planes mutually intersect within the outline of the sphere: α + β, α + γ, β + γ, γ + ε, δ + ε, γ + δ, β + ε.
2. Following pairs of the planes mutually intersect outside of the solid: α + δ, α + ε, β + δ.
3. The closest intersection to the surface is the one between the planes α and ε.
4. Diameter of the section equals the diameter of the sphere if the cutting plane goes through the center of the sphere.
5. No, none of the cutting planes goes through the center of the sphere.