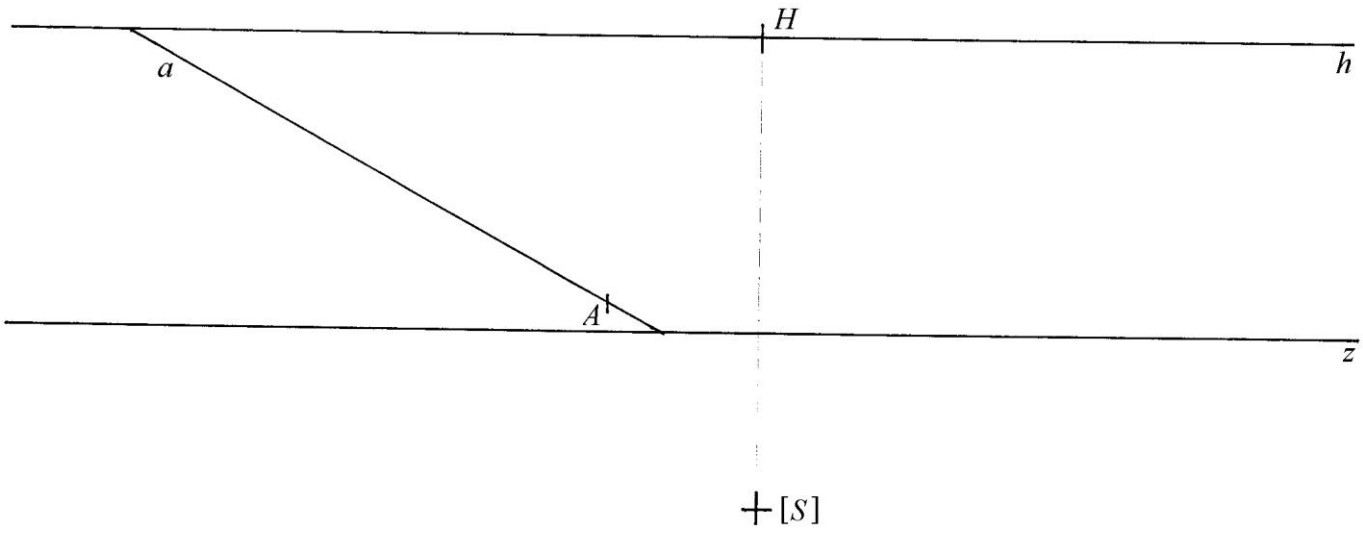
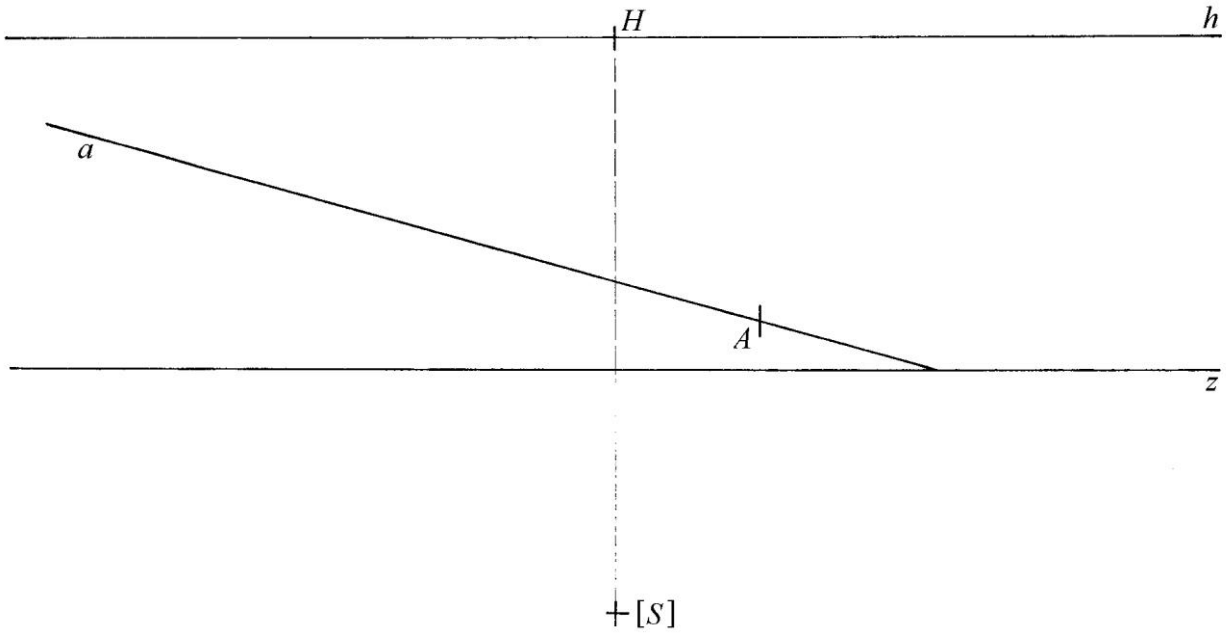
Name:

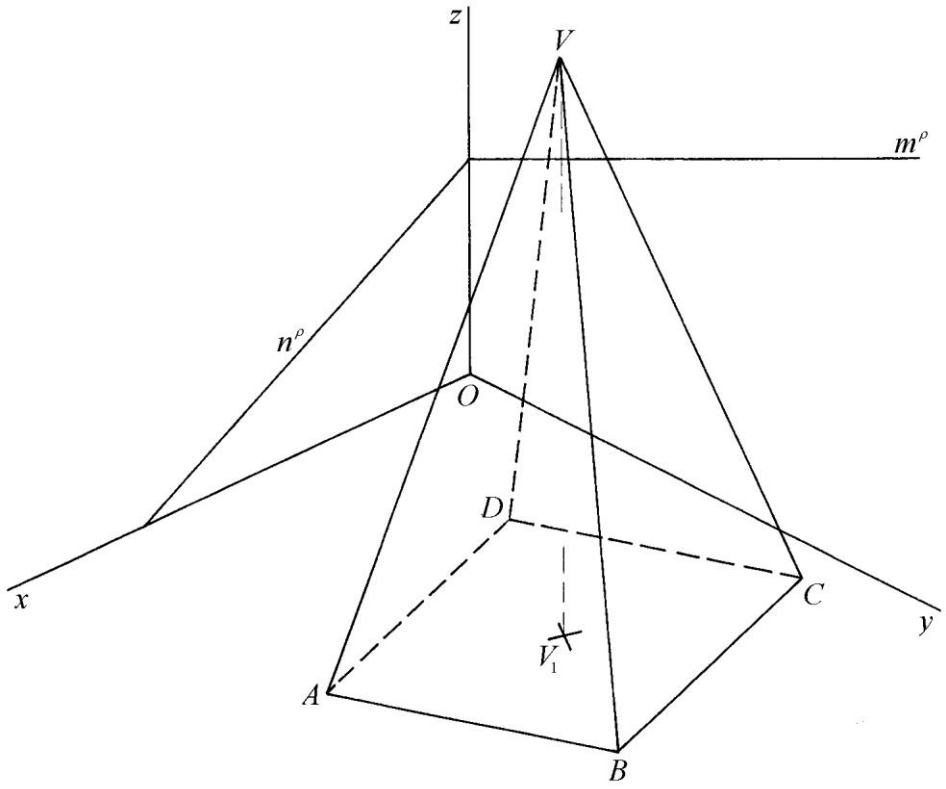
1) In PP (*h*, *z*, *H*, [*S*]): the perspective projection of the straight line *a* lying in the ground plane and perspective projection of the point $A \in a$ are given. Construct perpective projection of the cube with the base *ABCD* in the ground plane, the point *B* is on the line *a*, the length of the side AB is 50. Highlight the visibility of the cube. **(5 points)**



2) In PP (*h*, *z*, *H*, [*S*]): the perspective projection of the straight line *a* lying in the ground plane and the perspective projection of the point $A \in a$ are given. (The vanishing point of line *a* is inaccesible.) Construct perspective projection of point *B* on line *a* : $|AB| = 70$. In the ground plane construct perspective projection of line *p*, passing through point *A* such that the angle between lines *a* and *p* is 45°. **(4 points)**



3) In orthogonal axonometry construct the plane section of the pyramid with the base in π. Highlight the visibility of the plane section. **(3 points)**



4) In orthogonal axonometry $\triangle XYZ(100, 120, 110)$ construct the projection of the square *ABCD* lying in π, one vertex *A*[60, 70, 0] and center *S*[40, 40, 0] of the square are given. Construct axonometric projection of point *L*[80, 75, 100]. **(5 points)**

5) In orthogonal axonometry construct the intersection of the straight line *a* with the cylinder, the base of the cylinder in π. Highlight the visibility of the line *a*. **(3 points)**