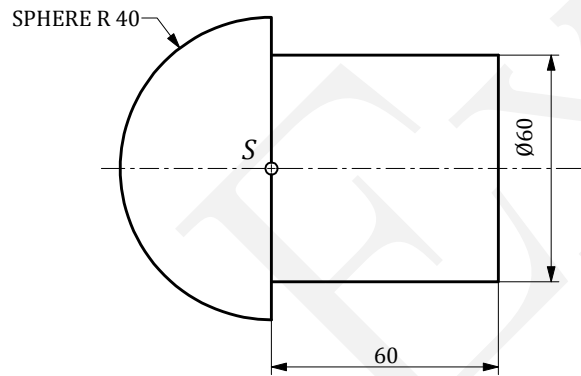


B	CONSTRUCTIVE GEOMETRY						E011021
Surname							
First name							
Date		Examiner			Grade		
Score	1	2	3	4	5	6	Total

- Construct the rotary solid given by technical drawing in technical isometry. Point S lies at origin and axis of revolution of the solid is identical with y -axis of coordinate system.

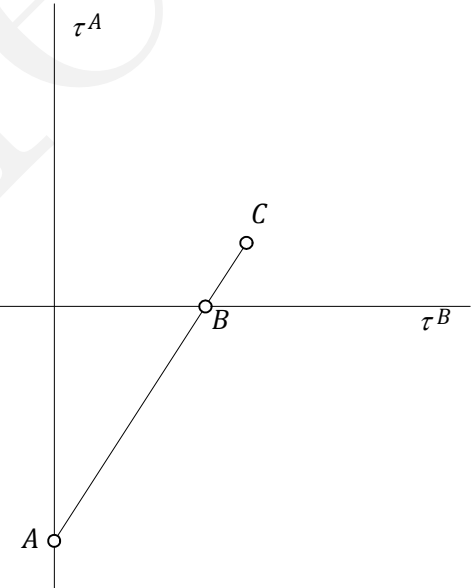


2. Two planes are given

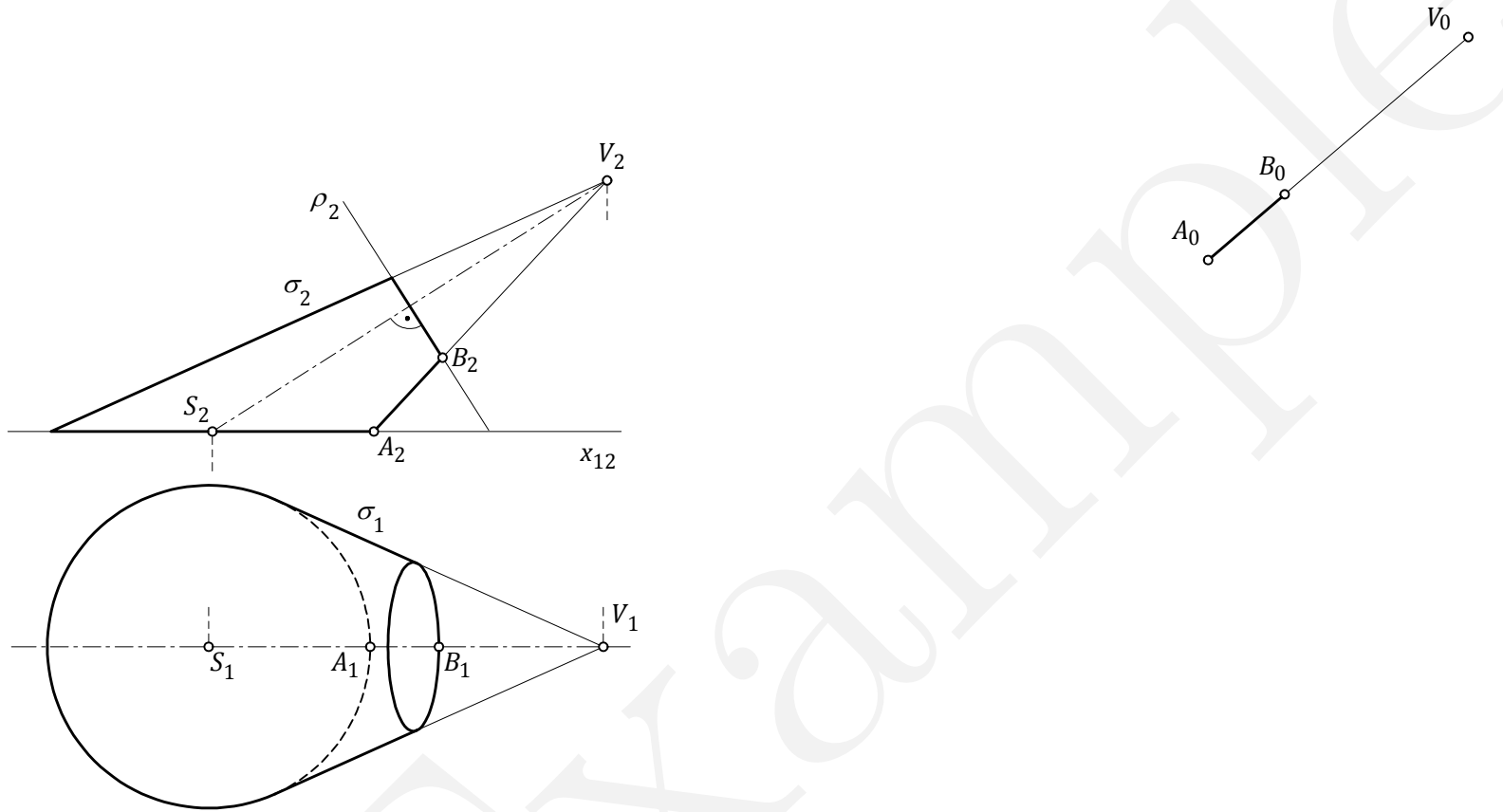
$$\rho: \frac{x}{8} + \frac{y}{4} + \frac{z}{4} = 1, \quad \sigma: \frac{x}{4} + \frac{y}{3} + \frac{z}{6} = 1.$$

Draw both planes in technical isometry, determine intersection curve $p = \rho \cap \sigma$ and calculate angle φ formed by planes ρ and σ .

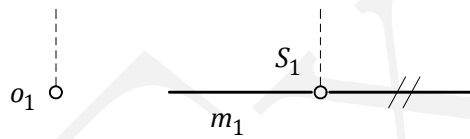
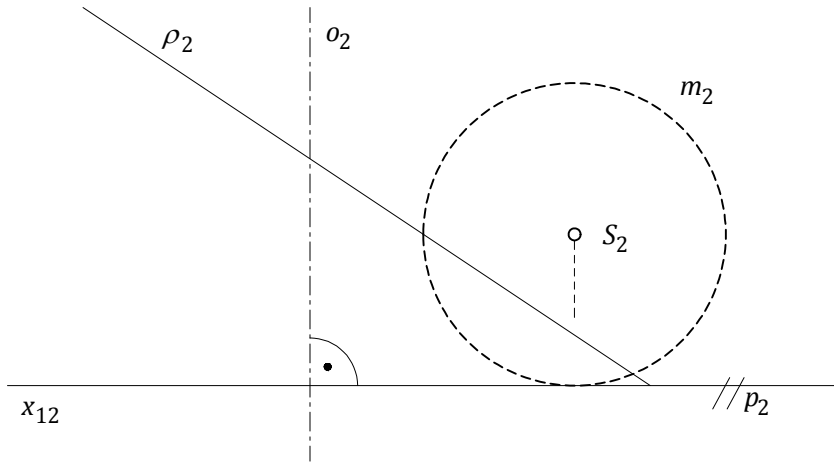
3. Motion is given by trajectories τ^A and τ^B of points A and B . Construct three new positions of moving point C . Construct tangent lines to trajectory τ^C of point C at all positions and sketch the trajectory τ^C .



4. Construct the development of oblique cone σ between the horizontal plane of projection and plane $\rho \perp \nu$.



5. The surface of revolution $\sigma = (m, o)$ and section plane $\rho \perp \nu$ are given. Using Monge projection, construct intersection curve $p = \sigma \cap \rho$. Indicate the visibility.



6. Helix $(A, o, v_0, \text{right-handed})$ and plane ρ is given. Using Monge projection, construct tangent line to the helix at point A and intersection R of the helix and plane ρ .

