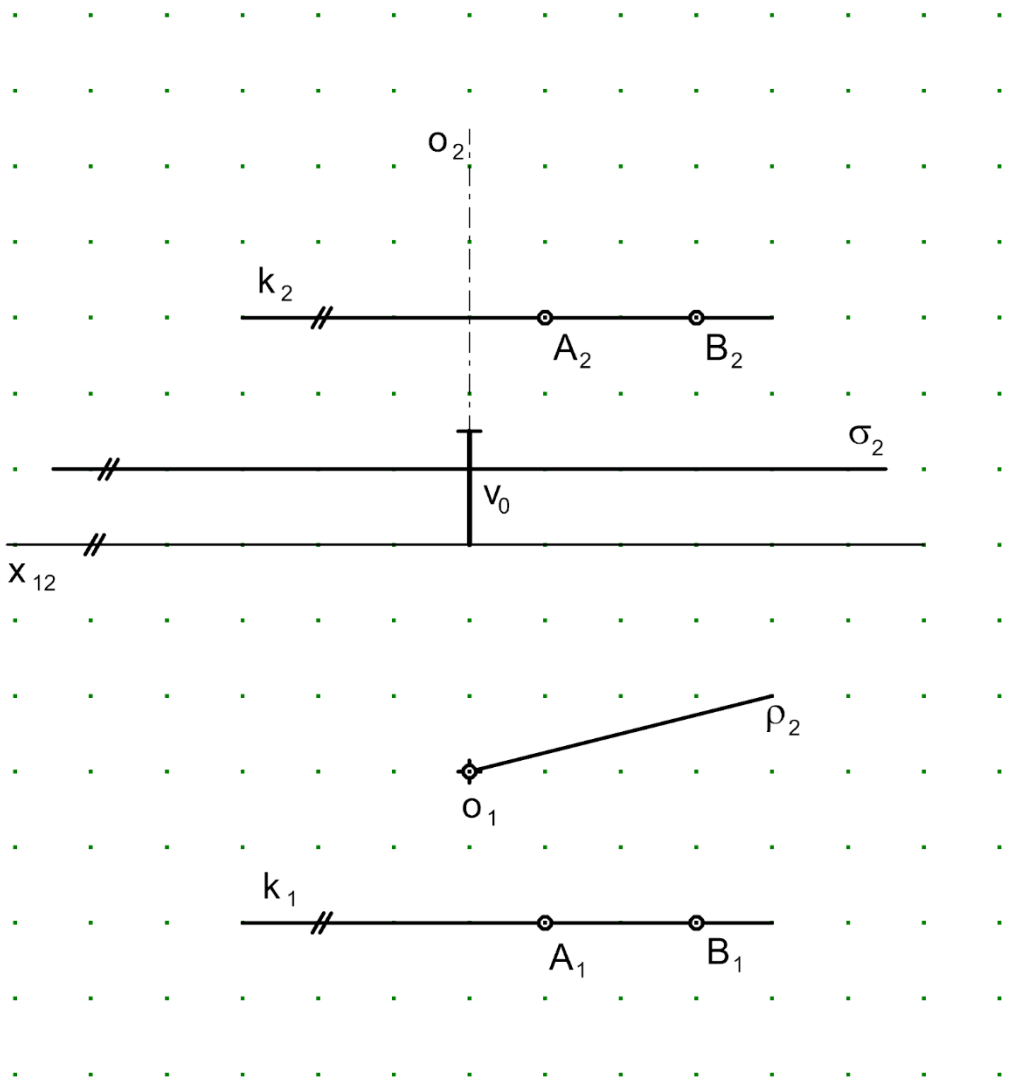
The distance of squared grid points is 1 cm. Redraw/print the assignment on A4 paper (portrait orientation) and construct your solution

1 Helicoidal surface (generating curve k, axis of screw motion o, parameter of screw motion v_0, right-handed) is given. Construct:

a) tangent plane $\tau = (t, u)$ at the given point A,

b) top view and front view of intersection R of the right-handed helix generated by point A and the plane σ.

c) Top view and front view of intersection P of the right-handed helix generated by point B and the plane ρ.

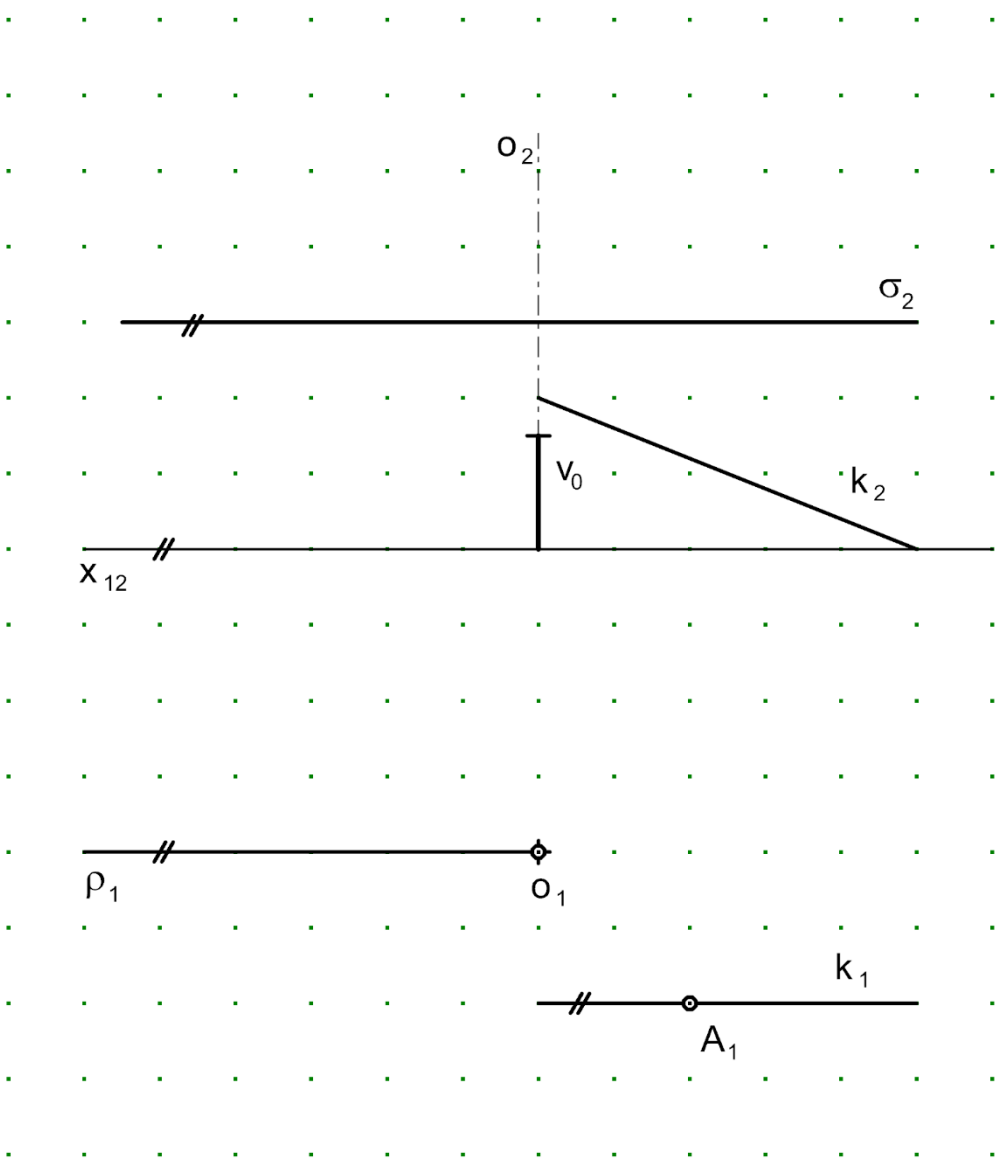


2 Helicoidal surface (generating curve k, axis of screw motion o, parameter of screw motion $v_0 = 15$ mm, left-handed) is given. Construct:

a) tangent plane $\tau = (t, u)$ at the given point $A \in k$,

b) top view and front view of intersection R of the left-handed helix generated by point $A \in k$ and the given half-plane ρ.

c) Top view and front view of intersection Q of the left-handed helix generated by point $A \in k$ and the given plane σ.

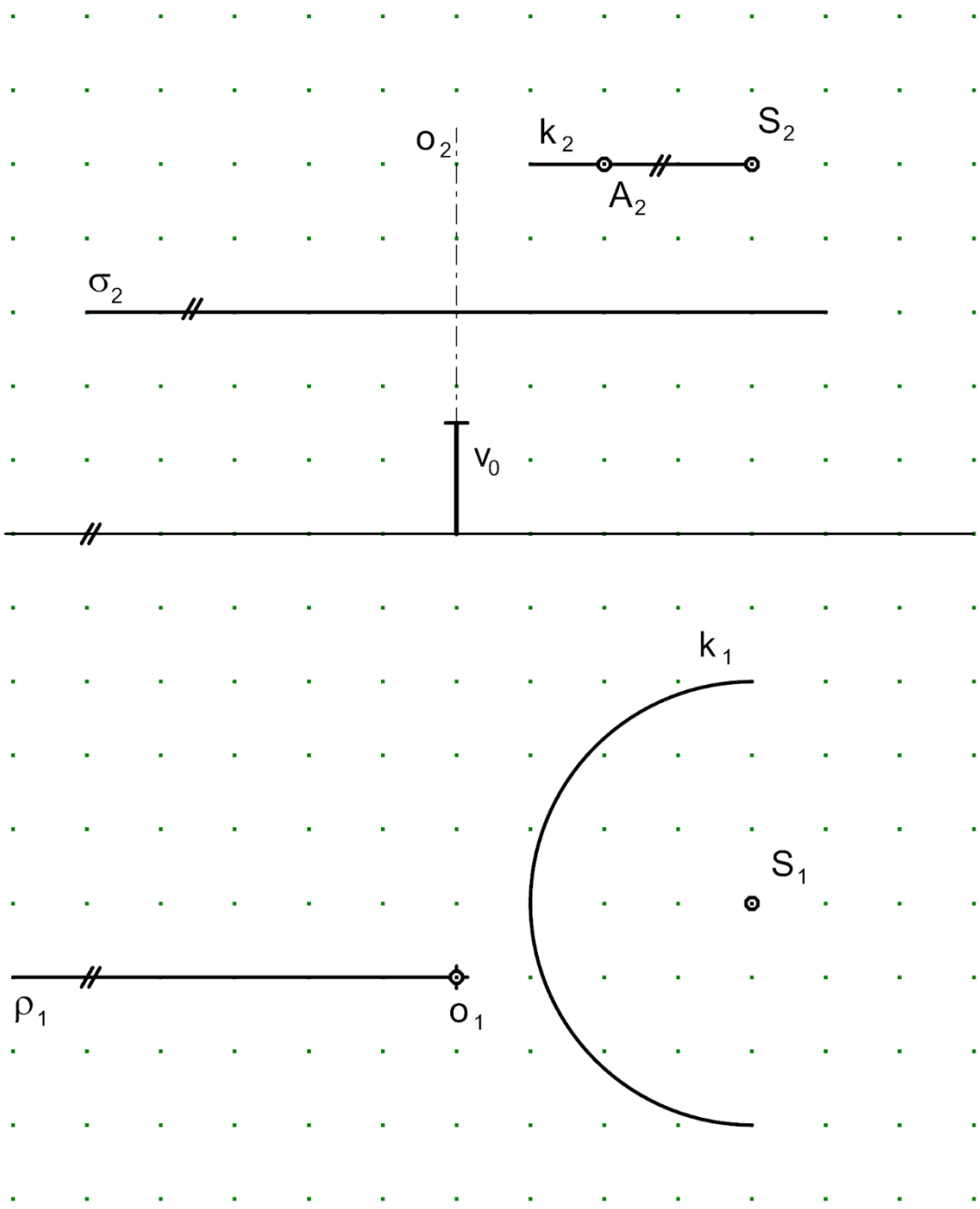


3 Helicoidal surface (generating curve k, axis of screw motion o, parameter of screw motion $v_0 = 15$ mm, left-handed) is given. Construct:

a) tangent plane $\tau = (t, u)$ at the given point A,

b) top view and front view of intersection R of the left-handed helix generated by point A and the plane ρ.

c) Top view and front view of intersection P of the left-handed helix generated by point A and the plane σ.



4 Helicoidal surface (generating curve k, axis of screw motion o, parameter of screw motion $v_0 = 20$ mm, right-handed) is given. Construct:

a) tangent plane $\tau = (t, u)$ at the given point $A \in k$,

b) top view and front view of intersection R of the right-handed helix generated by point $A \in k$ and the given half-plane ρ.