

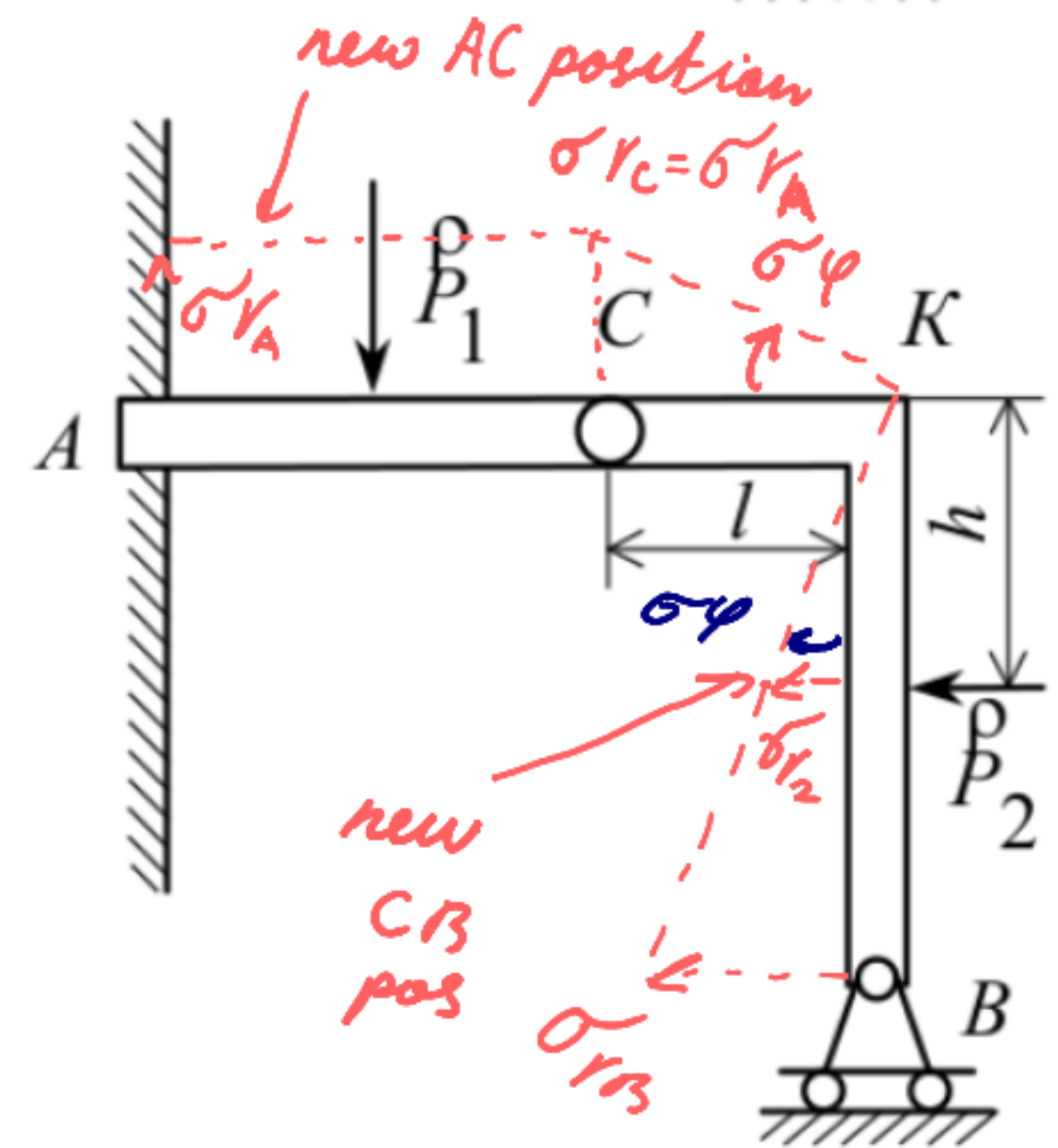
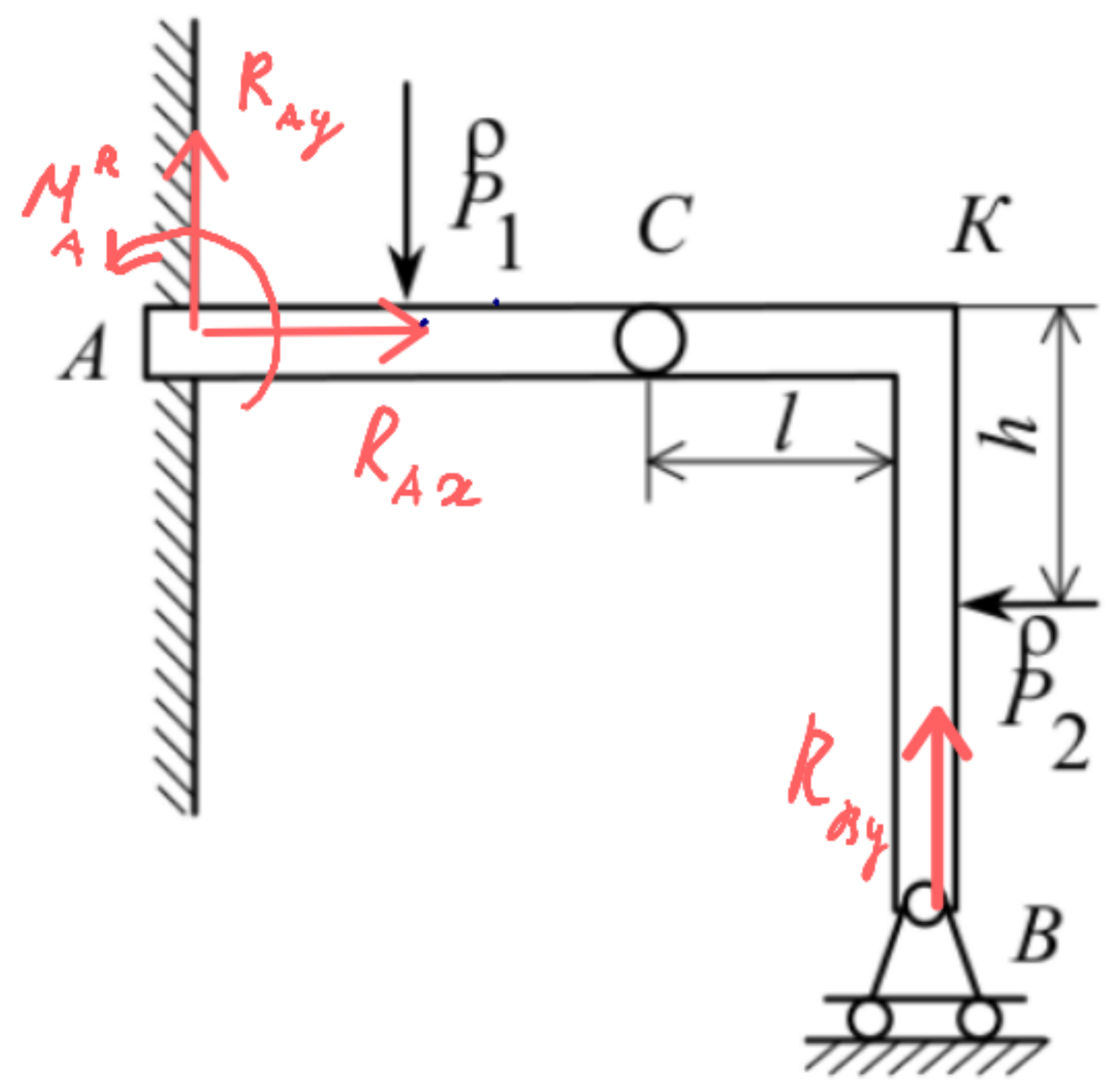
R.O : system consists of:

- a) AC - massless body, A - fix support, C - rot. joint
- b) CB - massless body, C - rot. joint, B - slider

Method: we need to find one reaction, all forces are given  $\rightarrow$  principle of virtual work (displacement)

Hints:

- 1) For finding needed reaction, we need to unfix direction, where reaction force positioned. Therefore, all our bodies will move as on a picture.
- 2) We found K as a point of rotation, using IC method



$$\delta A^a = R_{Ay} \delta r_A + P_1 \delta r_1 + P_2 \delta r_2 = 0$$

$$V_A = V_C = l\omega \quad \delta r_A = \delta r_C = l\delta\varphi \Rightarrow$$

$$\delta r_2 = h\delta\varphi = h\delta r_A \frac{1}{l} \Rightarrow \delta\varphi = \delta r_A \frac{1}{l}$$

$$\delta r_A \left( R_{Ay} - P_1 + P_2 \frac{h}{l} \right) = 0$$

$$\delta r_A \neq 0$$

$$R_{Ay} - P_1 + P_2 \frac{h}{l} = 0 \Rightarrow \boxed{R_{Ay}} = P_1 - P_2 \frac{h}{l}$$