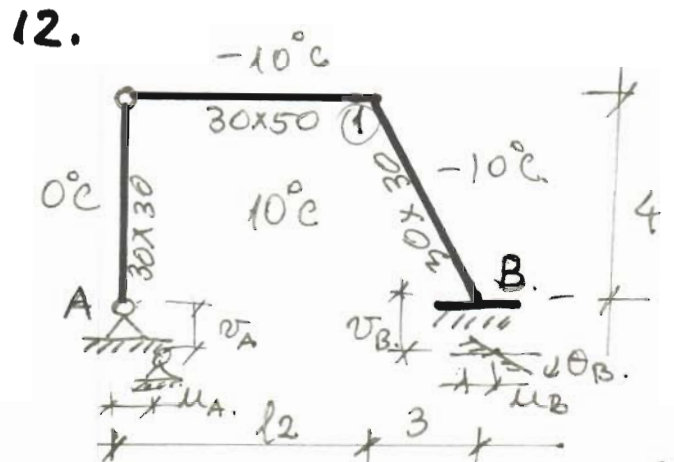
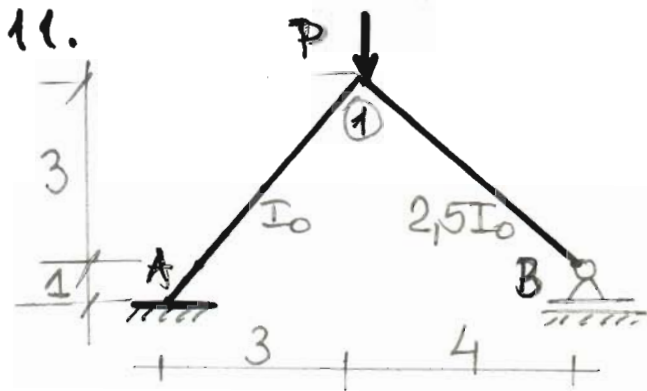
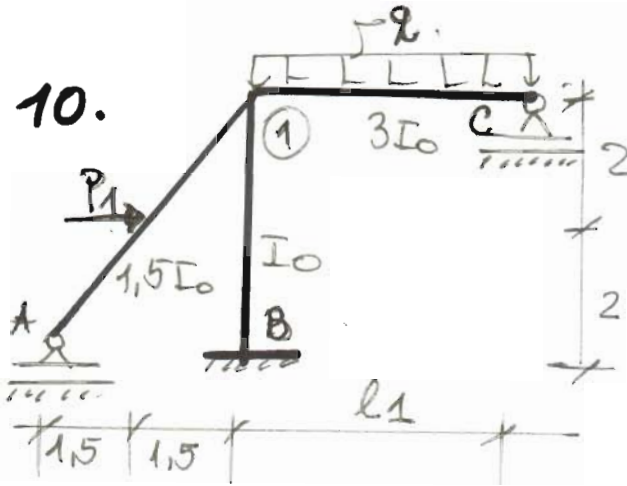
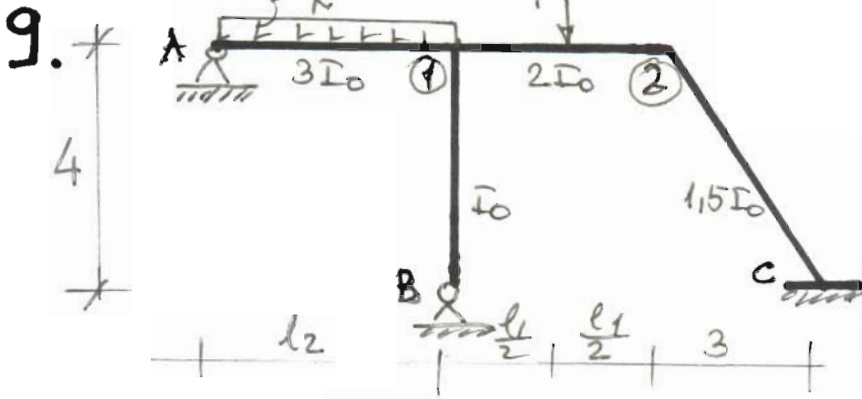


$n = 1 \div 5 : v_A = 0,2n(\text{cm}); \theta_A = 0,1n^\circ$   
 $n = 6 \div 10 : u_A = 0,1n(\text{cm}) \theta_A = 0,05n^\circ$   
 $n = 11 \div 15 : v_A = 0,05n(\text{cm}) \theta_B = 0,04n^\circ$   
 $n = 16 \div 20 : v_B = 0,04n(\text{cm}) \theta_B = 0,04n^\circ$   
 $n = 21 \div 25 : u_B = 0,03n(\text{cm}) \theta_B = 0,02n^\circ$   
 $n > 25 : v_B = 0,02n(\text{cm}) \theta_A = 0,02n^\circ$

$P = 10 + n \text{ (kN)}$   
 $q = 6 + 0,5n \text{ (kN/m)}$   
 $l_1 = 3 + 0,2n \text{ (m)}$   
 $l_2 = 2 + 0,1n \text{ (m)}$

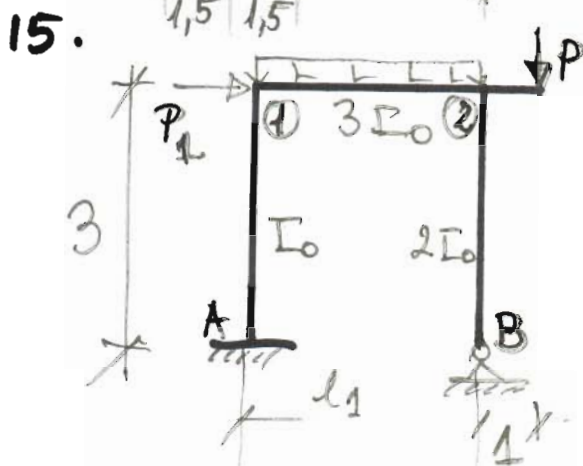
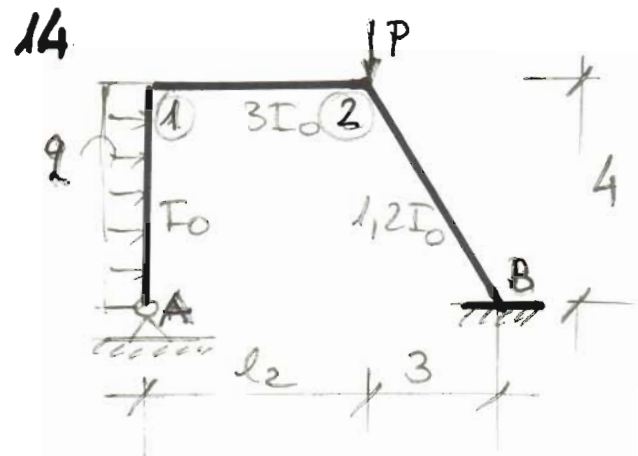
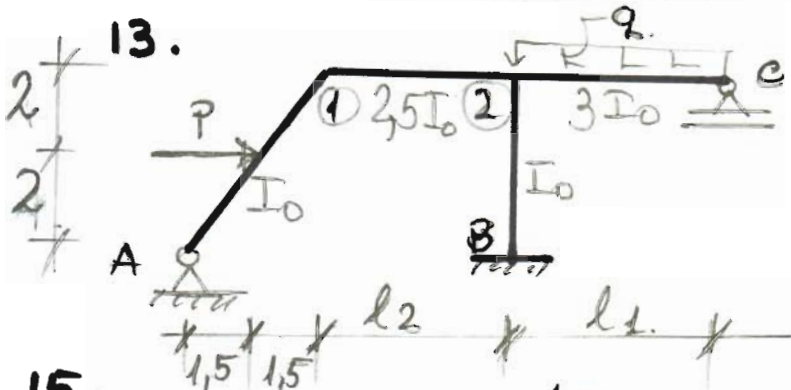
Nota: in este numaral de ordine  
dim grups

A. elastic

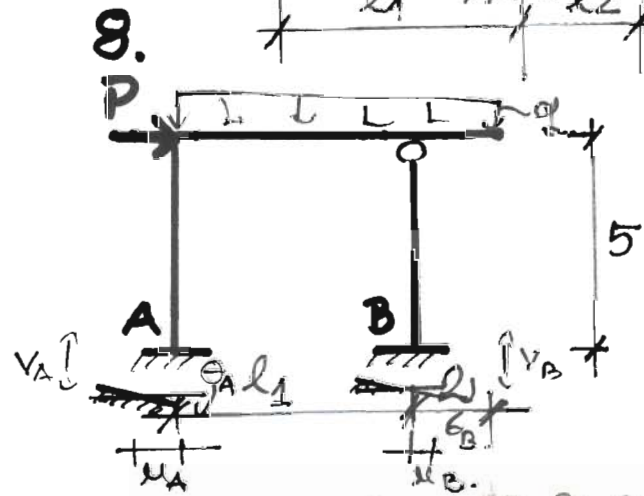
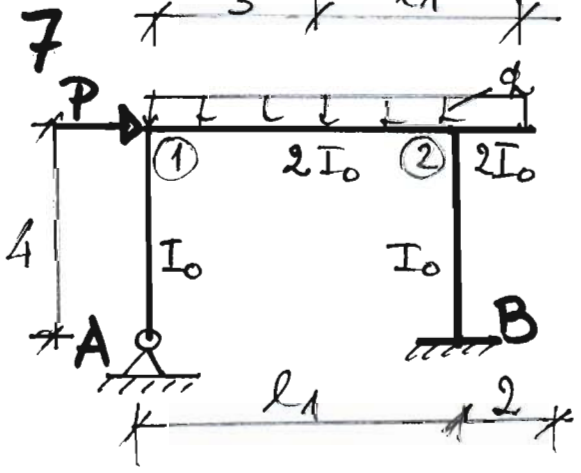
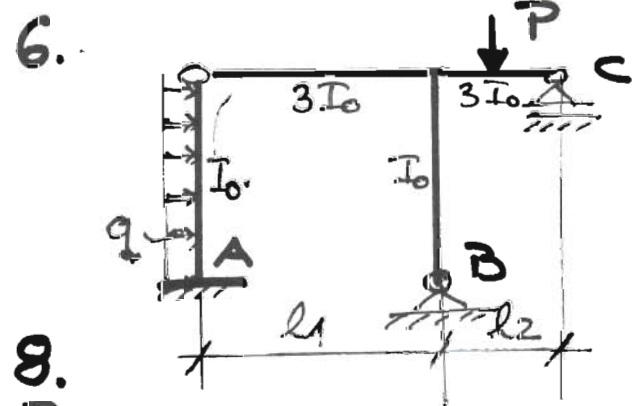
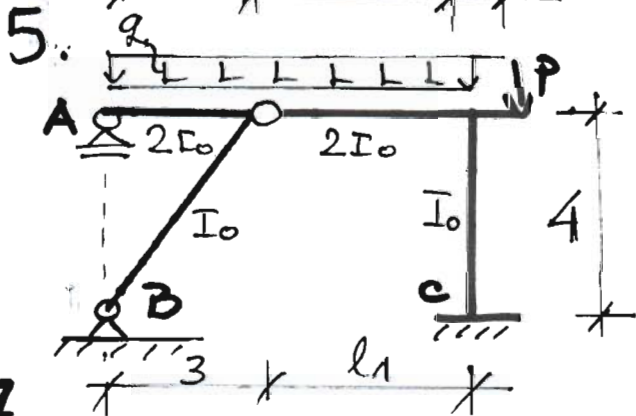
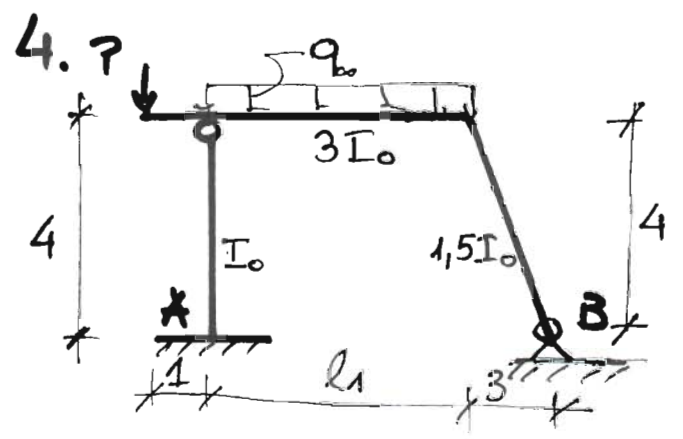
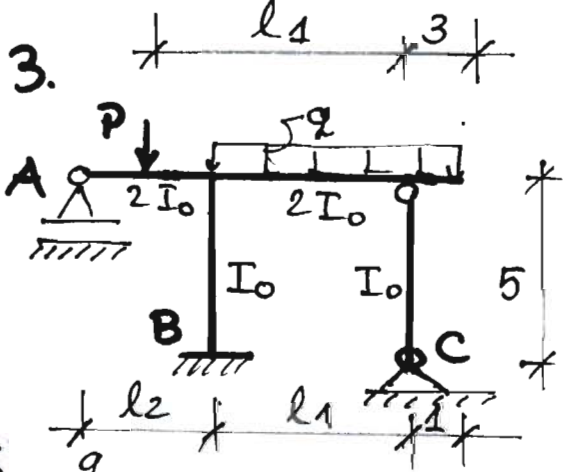
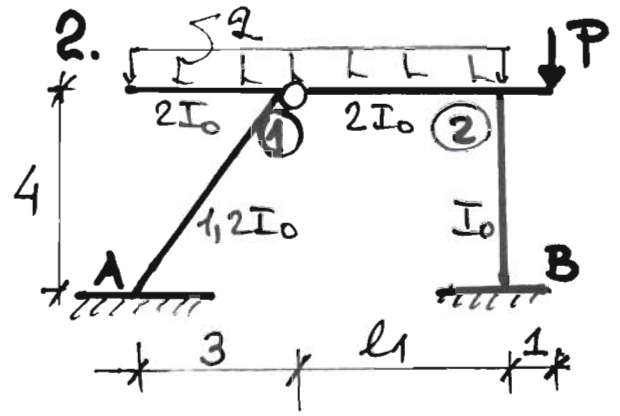
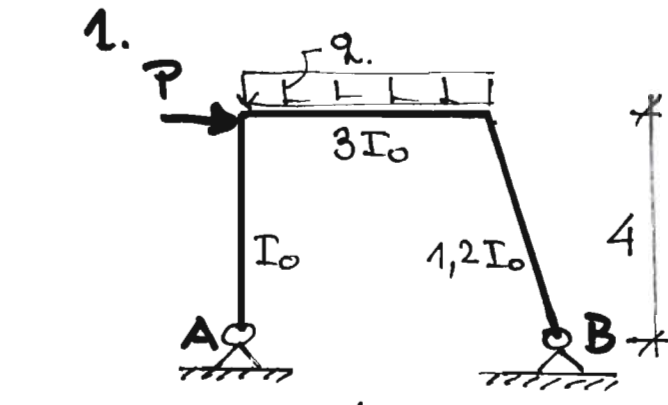


$n = 1 \div 10: v_B = 0,5 + 0,05n(\text{cm}) \quad \theta_B = 0,1n^\circ$   
 $n = 11 \div 20: v_A = 0,05n(\text{cm}) \quad \theta_B = 0,05n^\circ$   
 $n = 21 \div 30: u_A = 0,02n(\text{cm}) \quad \theta_B = 0,02n^\circ$   
 $n > 30: v_A = 0,02n(\text{cm}) \quad u_B = 0,03n(\text{cm})$

B. Iterativ în două etape (Metoda Cross)



# Metoda Fortelor (eforturilor) grupa 32302

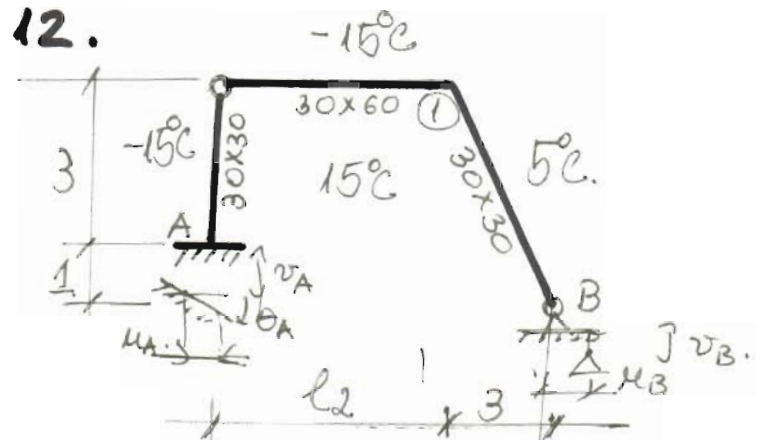
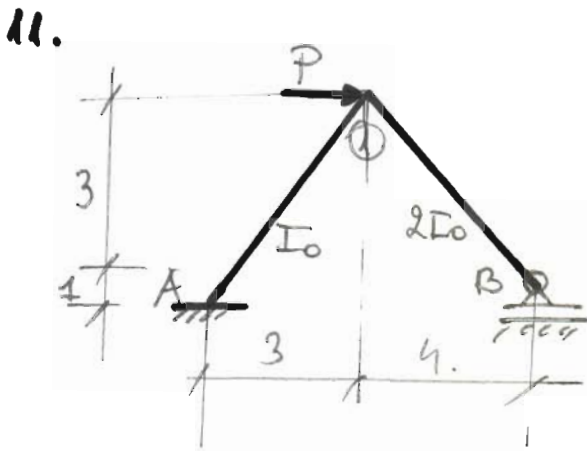
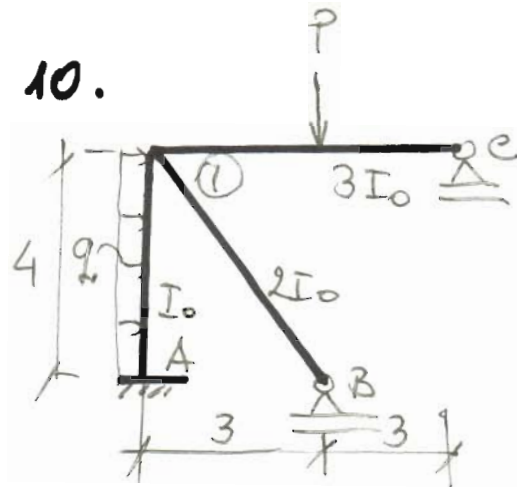
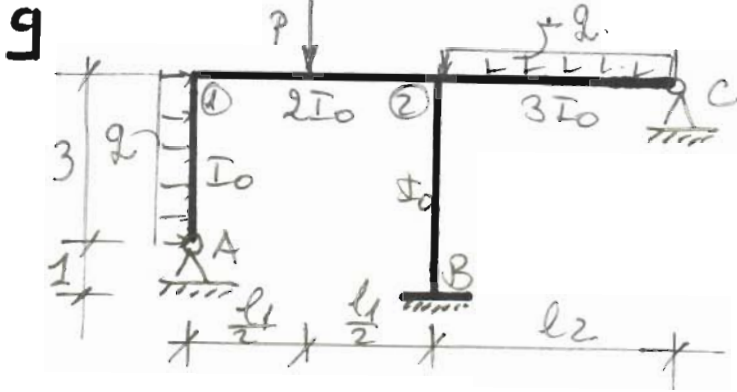


$P = 12 + 0,8n \text{ (kN)}$   
 $q = 6 + 0,5u \text{ (kN/m)}$   
 $l_1 = 2 + 0,2u \text{ (m)}$   
 $l_2 = 1 + 0,2u \text{ (m)}$

$n = 1 \div 5: \theta_A = 9,05n^\circ; \theta_B = 9,2n^\circ$   
 $n = 6 \div 10: v_A = 0,3n \text{ (cm)}; \theta_A = 9,03n^\circ$   
 $n = 11 \div 15: v_B = 0,05n \text{ (cm)}; \theta_B = 0,02n^\circ$   
 $n = 16 \div 20: \theta_A = 0,02u^\circ; M_B = 0,03n \text{ (cm)}$   
 $n = 21 \div 25: v_B = 0,02n \text{ (m)}; \theta_A = 9,01n^\circ$   
 $n > 25: \theta_A = 0,02n^\circ; \theta_B = 0,02n^\circ$

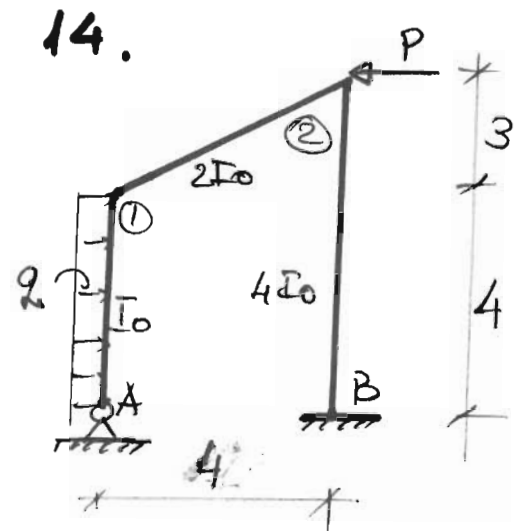
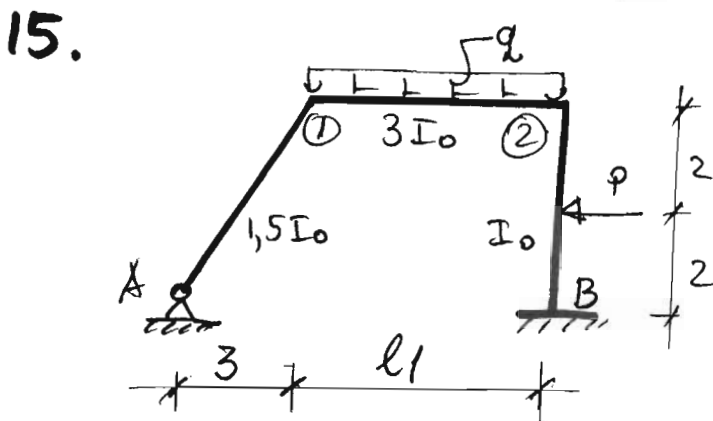
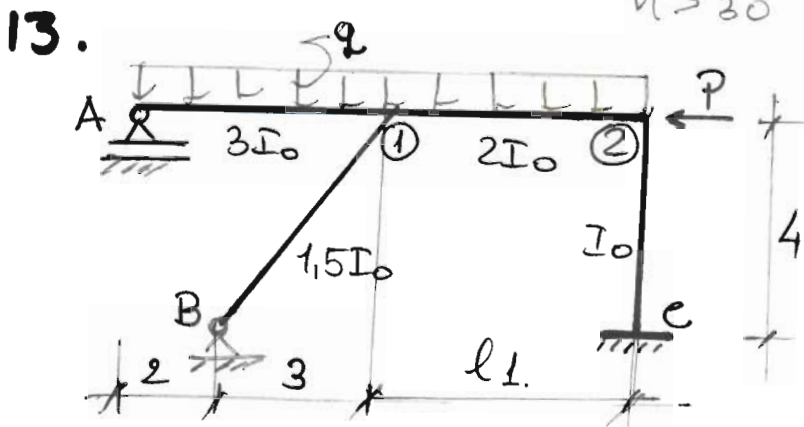
Notes: n este numărul de ordine din grup

A. Clasic



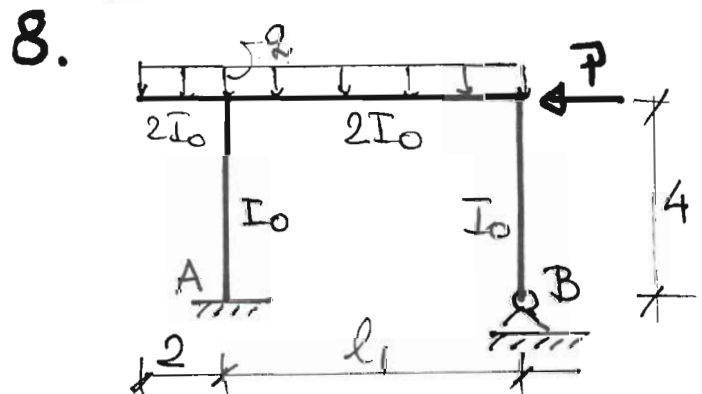
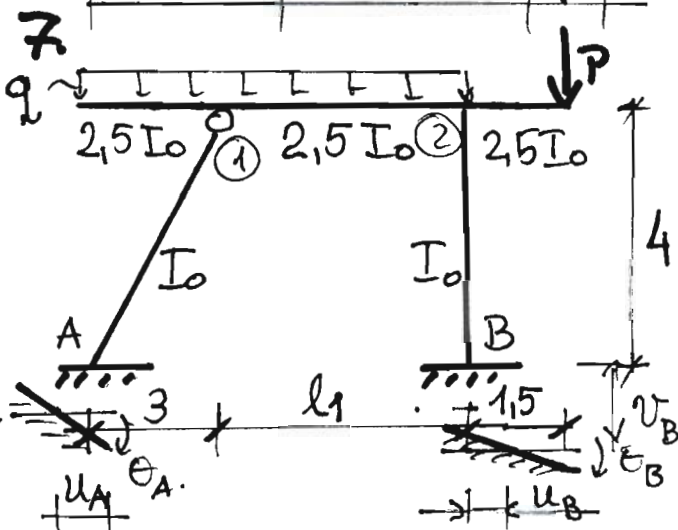
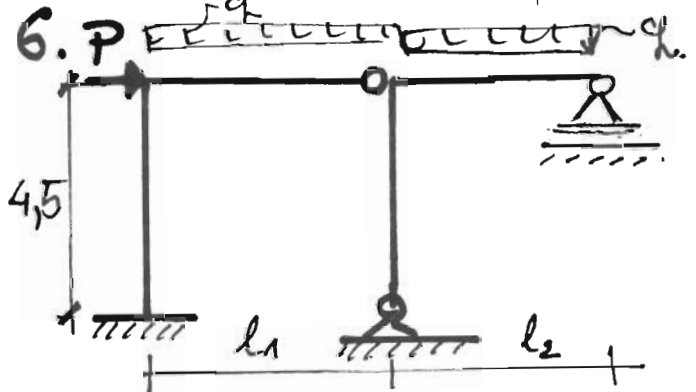
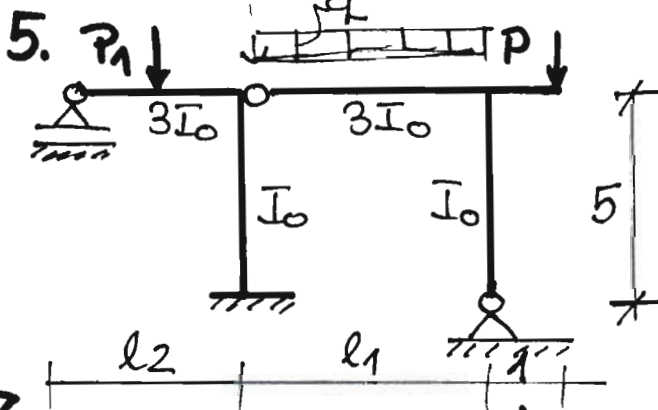
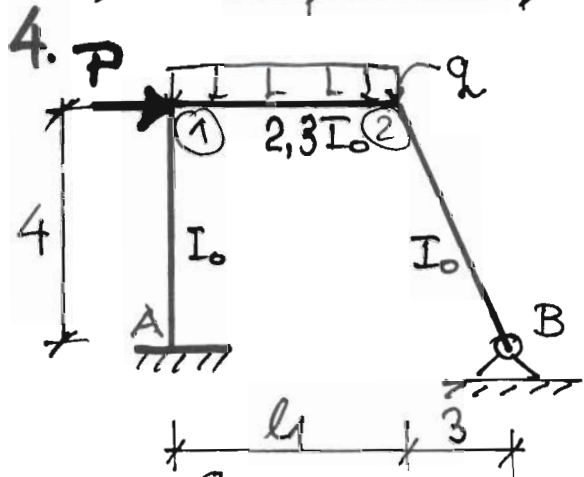
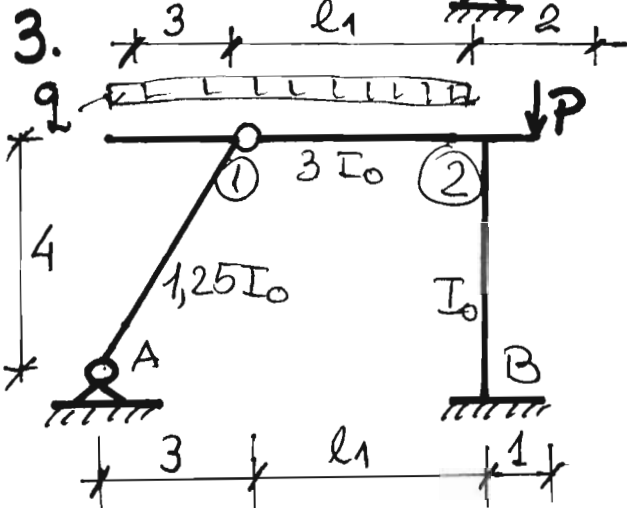
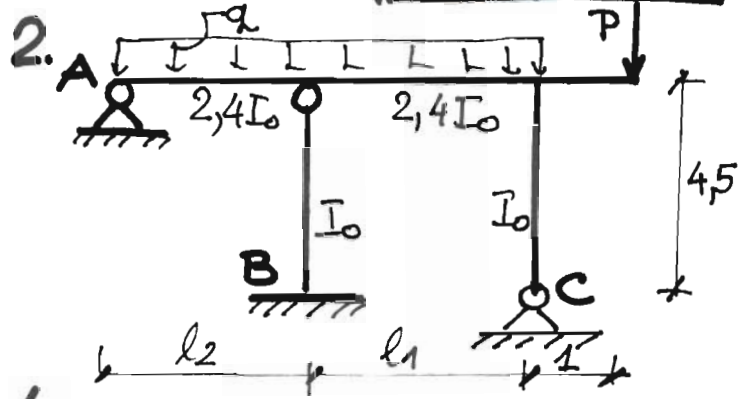
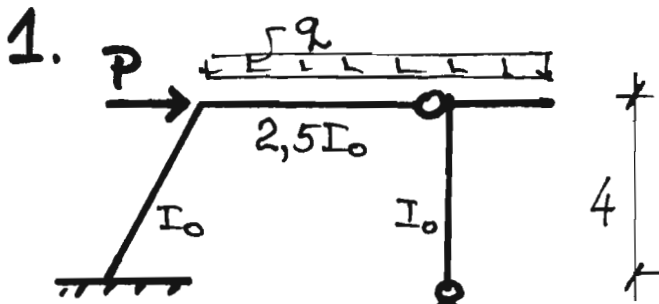
$n = 1 \div 10 : v_A = 95 + 0,05n \text{ (cm)} \quad \theta_A = 0,2n^\circ$   
 $n = 11 \div 20 : v_B = 905n \text{ (cm)} \quad \theta_A = 9,05n^\circ$   
 $n = 21 \div 30 : v_A = 0,02n \text{ (cm)} \quad v_B = 0,03n \text{ (cm)}$   
 $n > 30 : u_A = 9,02n \text{ (cm)} \quad \theta_A = 0,02n^\circ$

B. Iterativ (M. Cross)



# METODA FORTELOR (EFORTURILOR)

Gr. 32303



$M = 1 \div 5 \quad u_A = 0,2n(\text{cm}) \quad \theta_B = 0,05n^\circ$   
 $M = 6 \div 10 \quad \theta_A = 0,02n^\circ \quad \theta_B = 0,03n^\circ$   
 $M = 11 \div 15 \quad v_A = 0,05n(\text{cm}) \quad \theta_A = 0,05n^\circ$   
 $M = 16 \div 20 \quad v_B = 0,05n(\text{cm}) \quad \theta_B = 0,02n^\circ$   
 $M = 21 \div 25 \quad \theta_B = 0,01n^\circ \quad \theta_A = 0,02n^\circ$

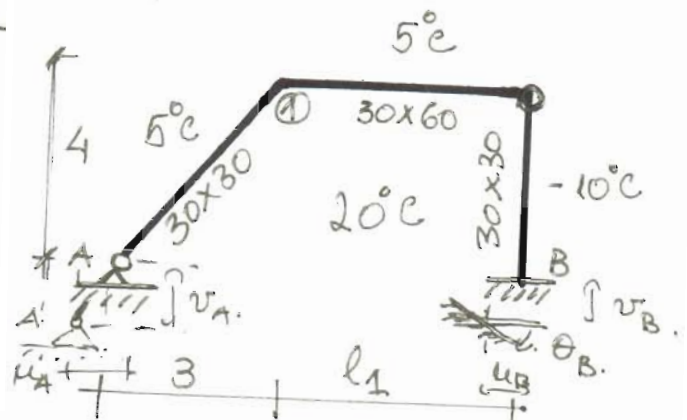
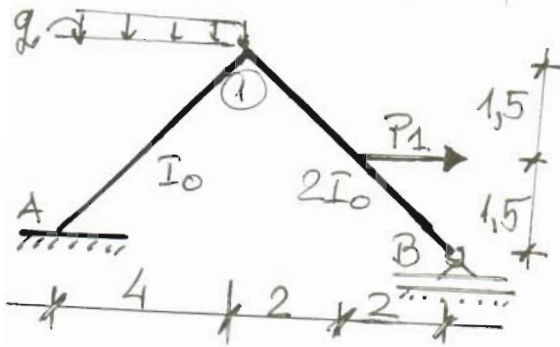
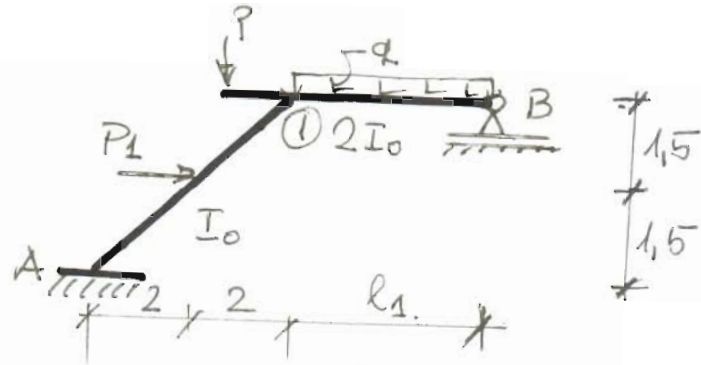
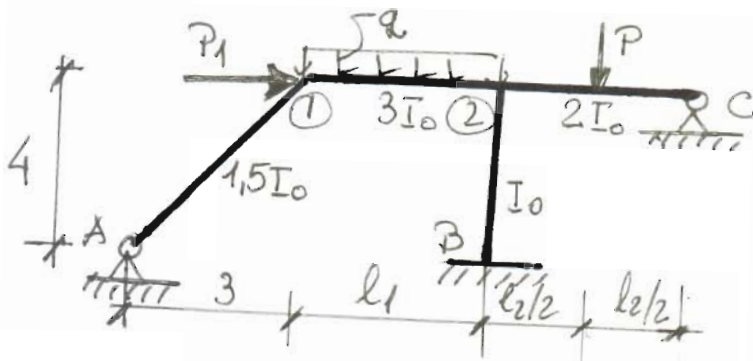
$P_1 = 10 + n \text{ (kN)}$   
 $P = 8 + n \text{ (kN)}$   
 $q = 5 + 0,5n \text{ (kN/m)}$   
 $l_1 = 3 + 0,2n \text{ (cm)}$   
 $l_2 = 1 + 0,2n \text{ (cm)}$

Nota!

n - este numărul de ordine din grup

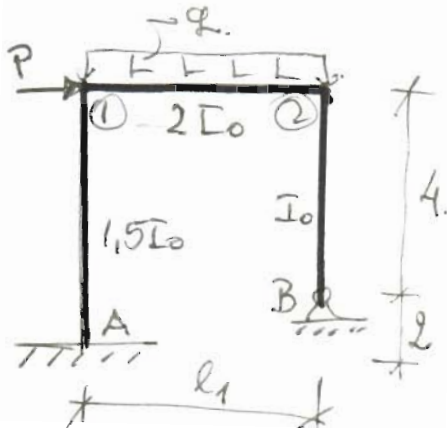
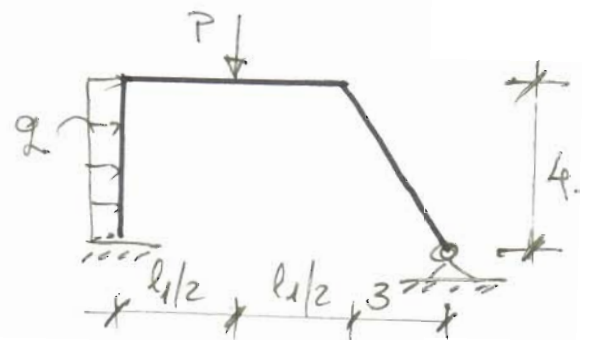
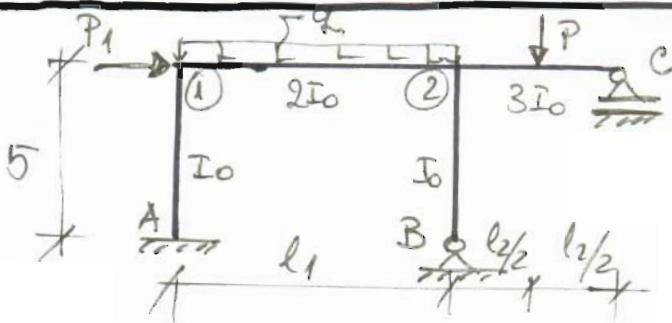
# METODA DEPLASĂRILOR [GR. 32303]

## A. Clasic.



$u = 1 \div 10 : v_A = 0,5 + 0,05 u \text{ (cm)}; \theta_B = 0,05 u^\circ$   
 $u = 11 \div 20 : v_B = 0,05 u \text{ (cm)}; \theta_B = 0,05 u^\circ$   
 $u = 21 \div 30 : u_B = 0,04 u \text{ (cm)}; \theta_B = 0,03 u^\circ$   
 $u > 30 : u_A = 0,04 u \text{ (cm)}; v_B = 0,04 u \text{ (cm)}$

## B. Iterativ în două etape (Metoda Cross)

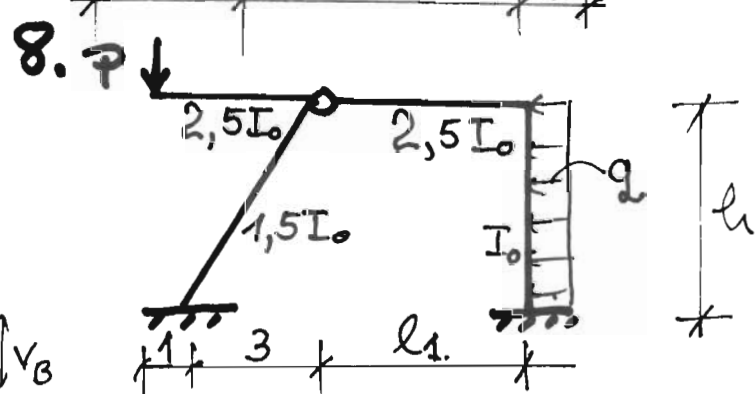
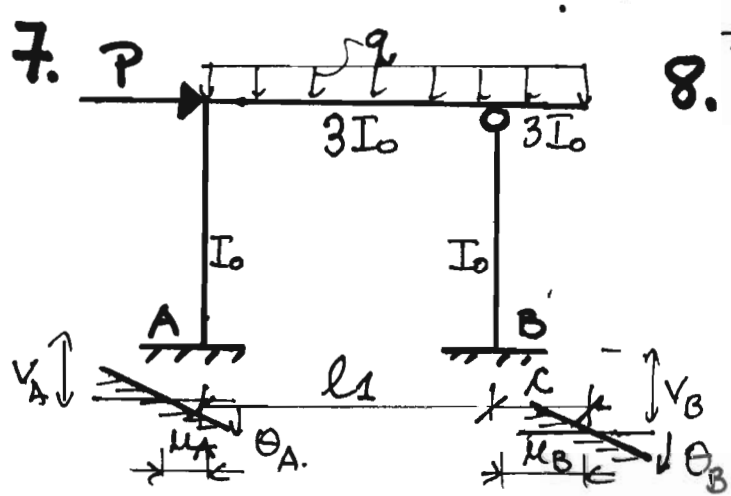
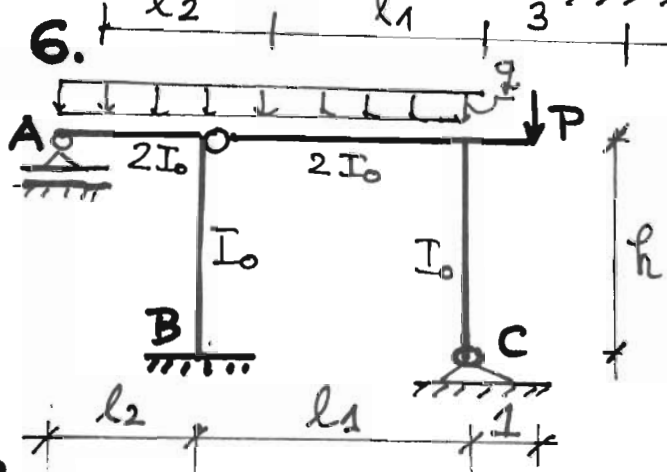
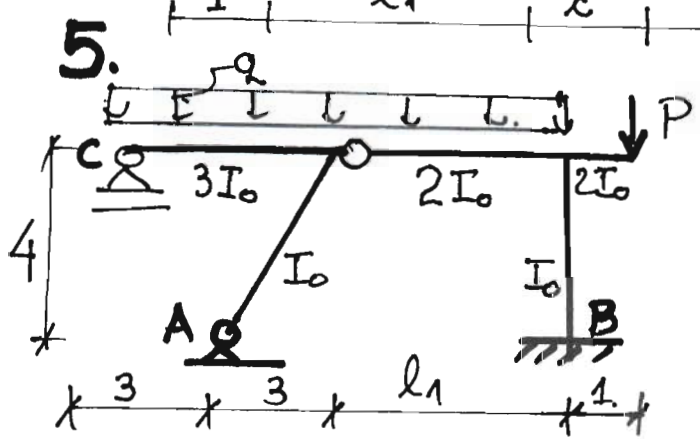
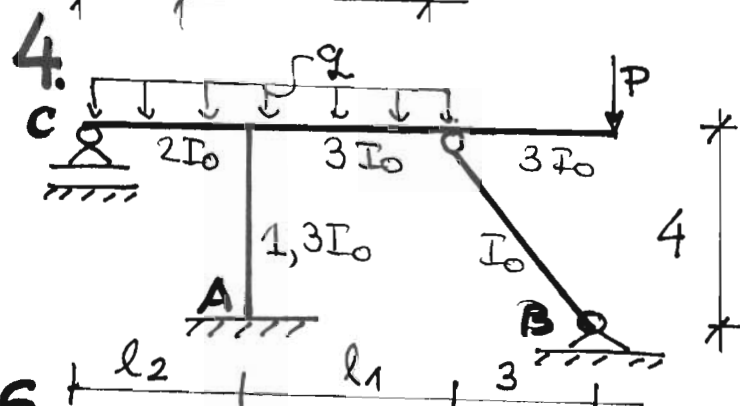
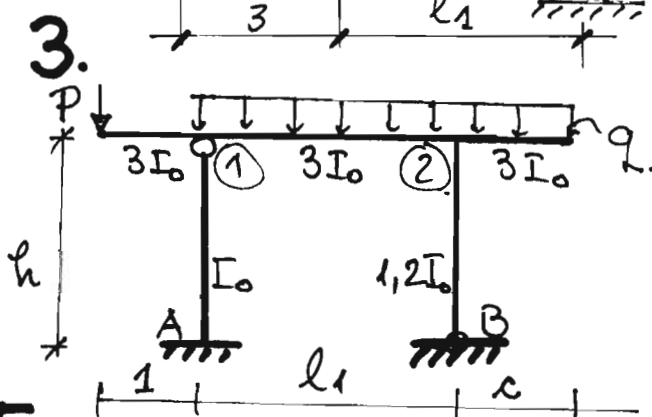
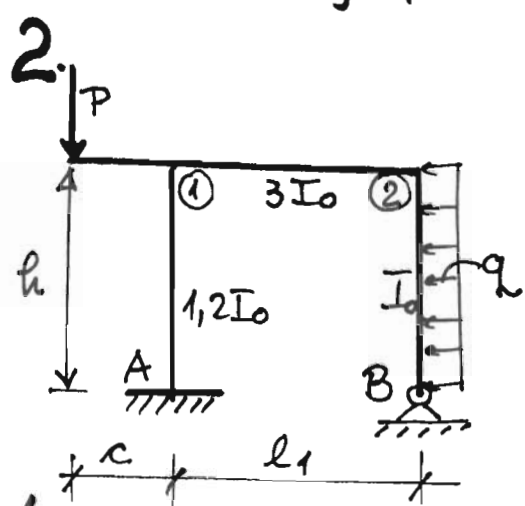
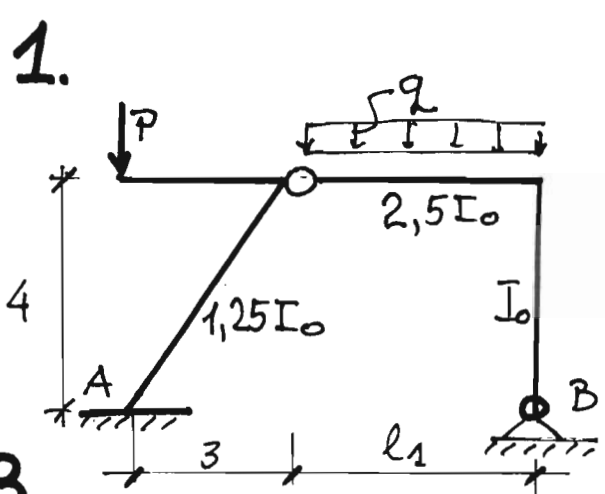


Obs.

Valorile numerice și dimensiunile geometrice ale structurilor citate se aleg de la M.F.

# METODA FORTELOR (EFORTURILOR)

grupa 32304



- $n = 1 \div 5 : v_A = 0,2n \text{ (cm)}; \theta_A = 0,05 \cdot n^\circ$
- $n = 6 \div 10 : u_A = 0,3n \text{ (cm)} \quad \theta_B = 0,03n^\circ$
- $n = 11 \div 15 : v_B = 0,02n \text{ (cm)} \quad v_A = 0,01n \text{ (cm)}$
- $n = 16 \div 20 : u_B = 0,01n \text{ (cm)} \quad \theta_A = 0,02n^\circ$
- $n = 21 \div 25 : v_A = 0,01n \text{ (cm)} \quad \theta_B = 0,02n^\circ$
- $n \geq 25 : \theta_A = 0,02n^\circ \quad \theta_B = 0,01n^\circ$

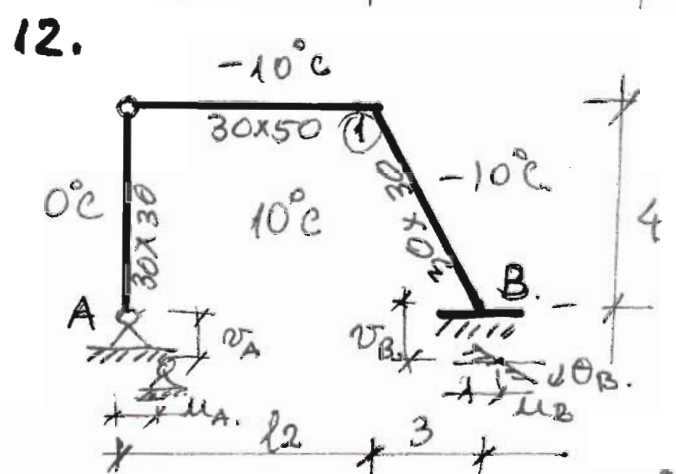
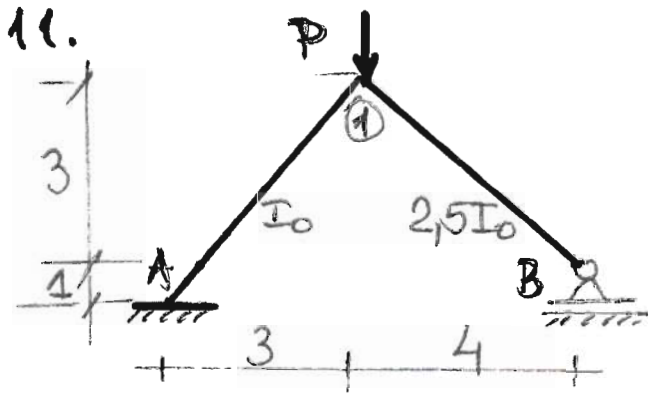
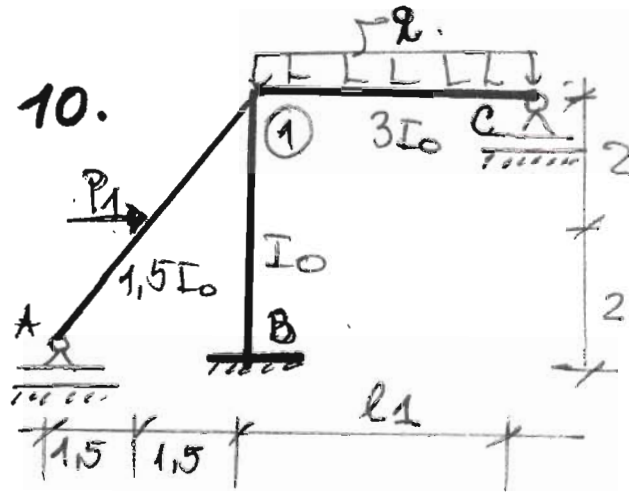
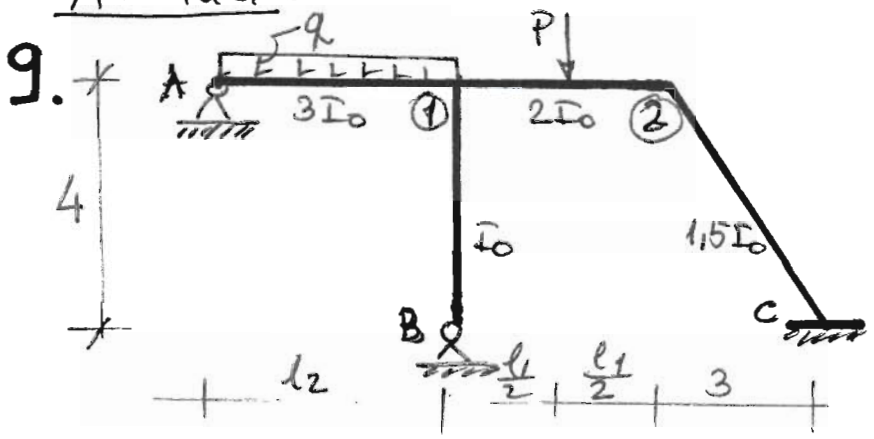
$P = 8 + n \text{ (kN)}$   
 $P_1 = 8 + 0,5n \text{ (kN)}$   
 $q = 5 + 0,4n \text{ (kN/m)}$   
 $l_1 = 3 + 0,2n \text{ (m)}$   
 $l_2 = 1 + 0,2n \text{ (m)}$   
 $h = 5 \text{ m} \quad c = 1,5 \text{ m}$

**Nota:** n este numărul de ordine din grupă

# METODA DE PLASĂRILOR

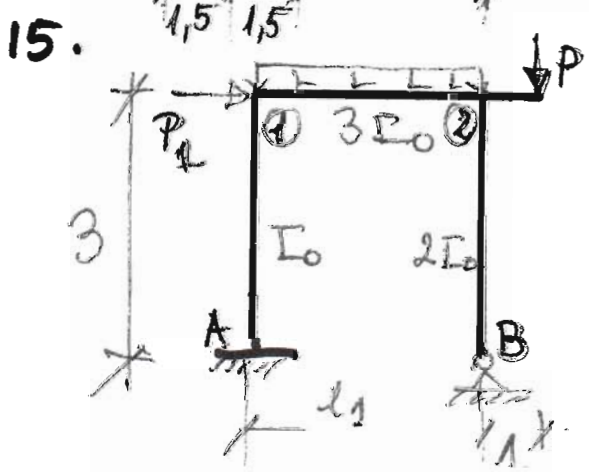
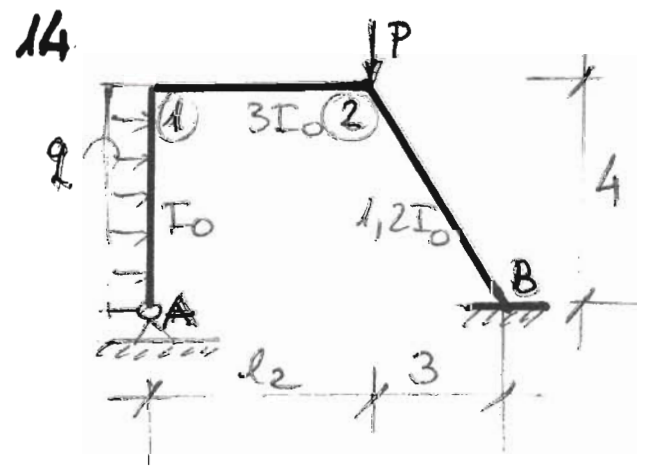
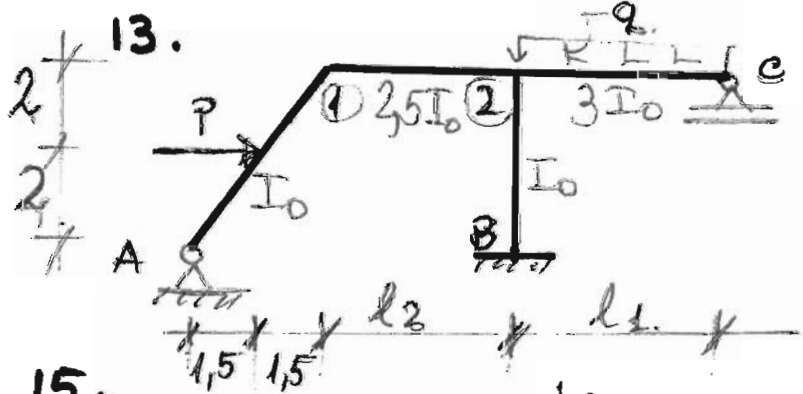
32304

A. elastic



$n=1 \div 10: v_B = 0,5 + 0,05n(\text{cm}) \quad \theta_B = 0,1n^\circ$   
 $n=11 \div 20: v_A = 0,05n(\text{cm}) \quad \theta_B = 0,05n^\circ$   
 $n=21 \div 30: u_A = 0,02n(\text{cm}) \quad \theta_B = 0,02n^\circ$   
 $n > 30: v_A = 0,02n(\text{cm}) \quad u_B = 0,03n(\text{cm})$

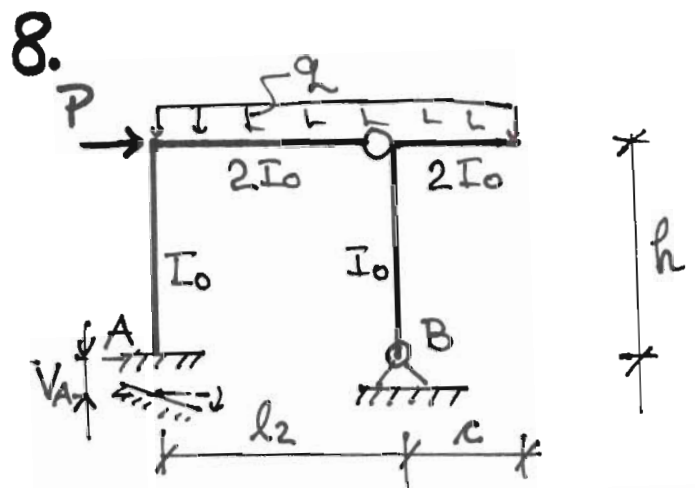
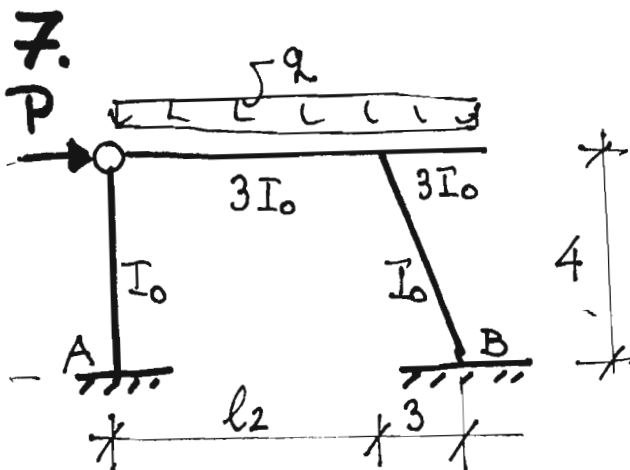
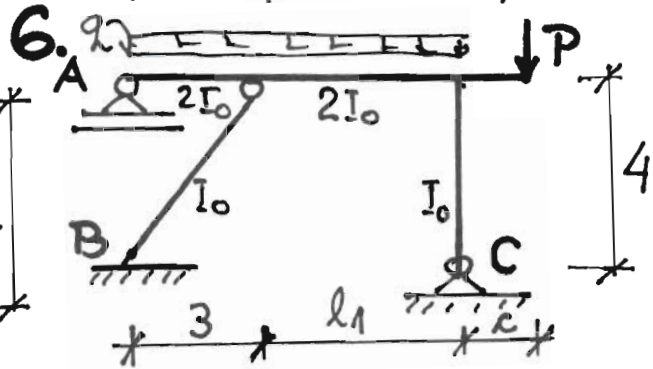
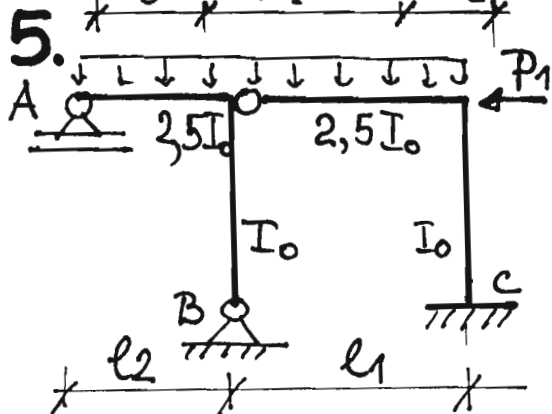
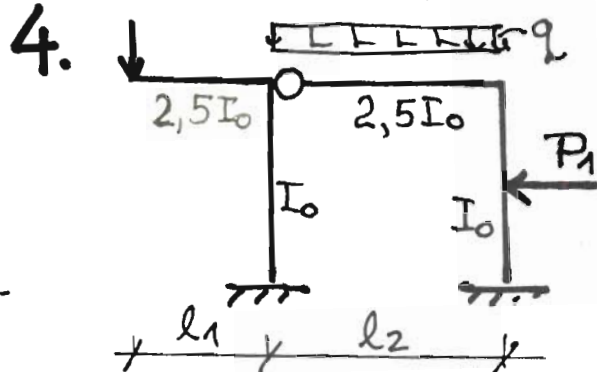
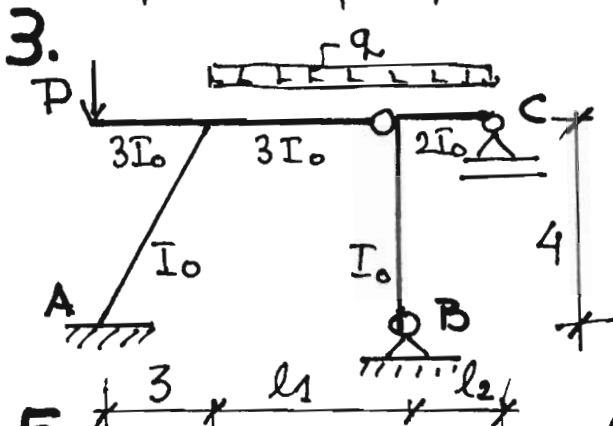
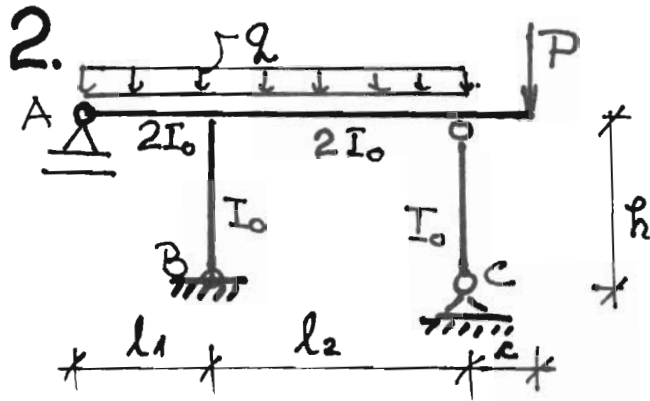
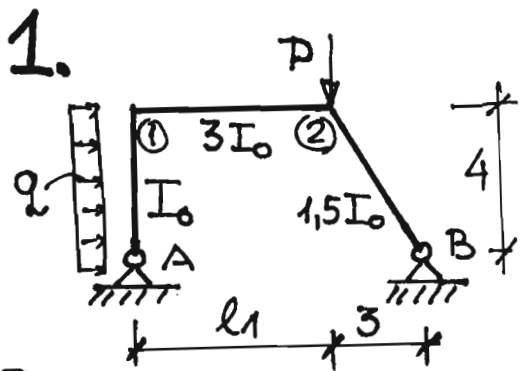
B. Iterativ în două etape (Metoda Cross)





# METODA FORTELOR (EFORTURILOR)

32305

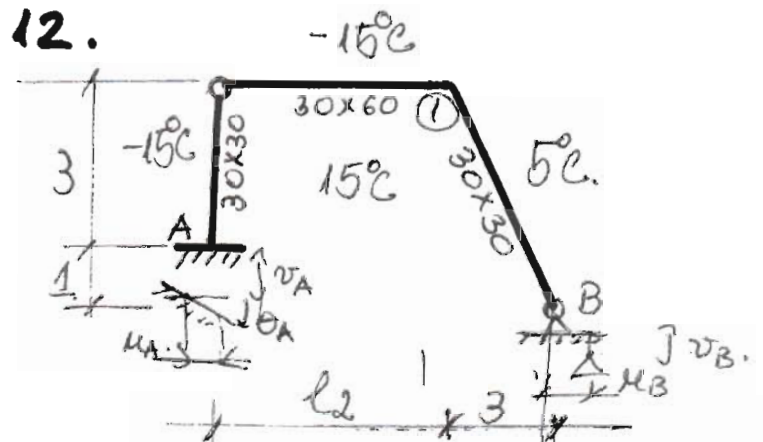
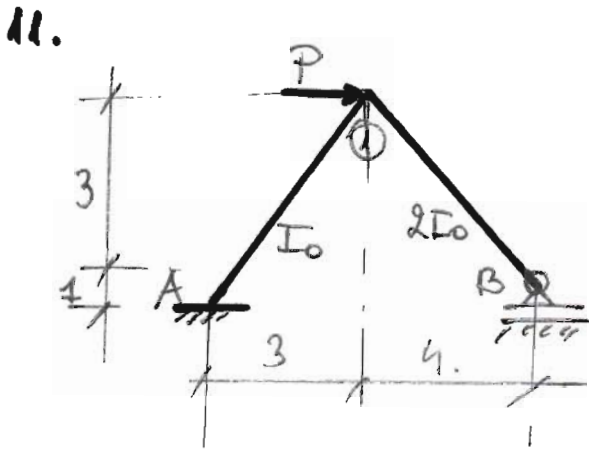
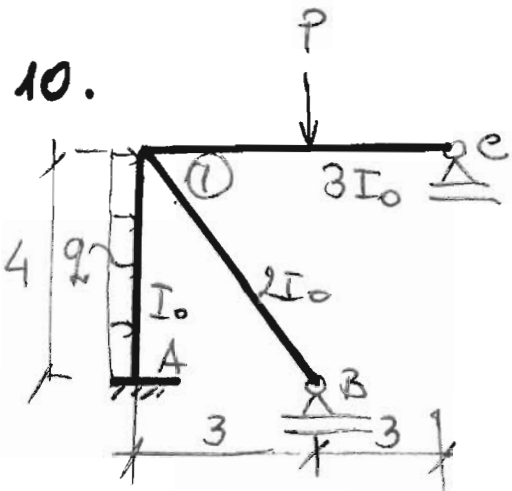
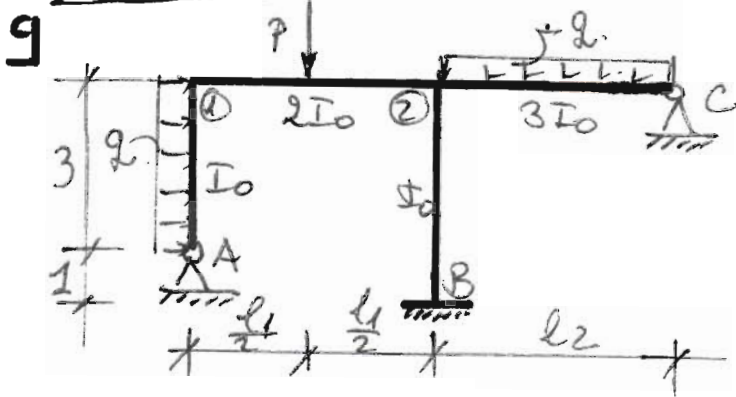


$P = 10 + n \text{ (kN)}$   
 $P_1 = 10 + 0,5n \text{ (kN)}$   
 $q = 8 + 0,5n \text{ (kN)}$   
 $l_1 = 3 + 0,2n \text{ (m)}$   
 $l_2 = 1 + 0,2n \text{ (m)}$   
 $h = 2 + 0,1n \text{ (m)}$   
 $c = 2 \text{ m}$

$n = 1-10: v_A = 0,1n \text{ m}; \theta_A = (0,05n)^\circ$   
 $n = 10-20: v_A = (0,05 + 0,03n) \text{ m}$   
 $\theta_A = (0,01n)^\circ$   
 $n \geq 20: v_A = (0,03n) \text{ m}; \theta_A = (0,02)^\circ$

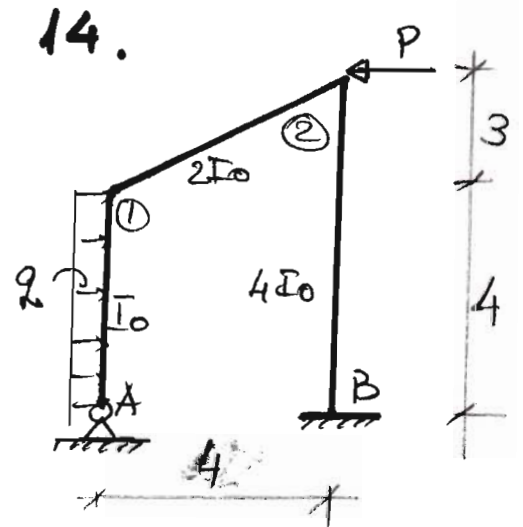
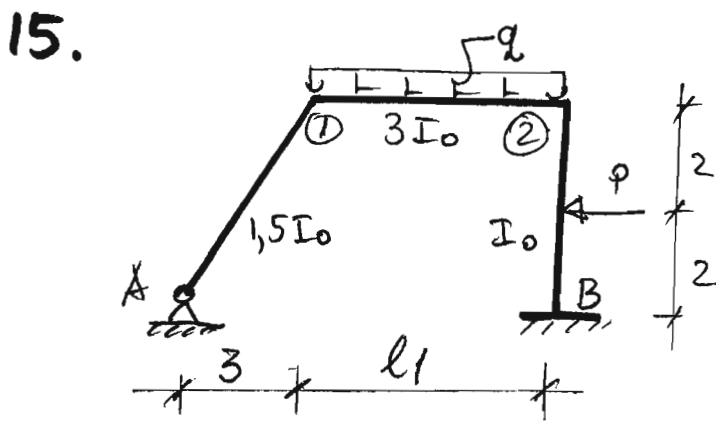
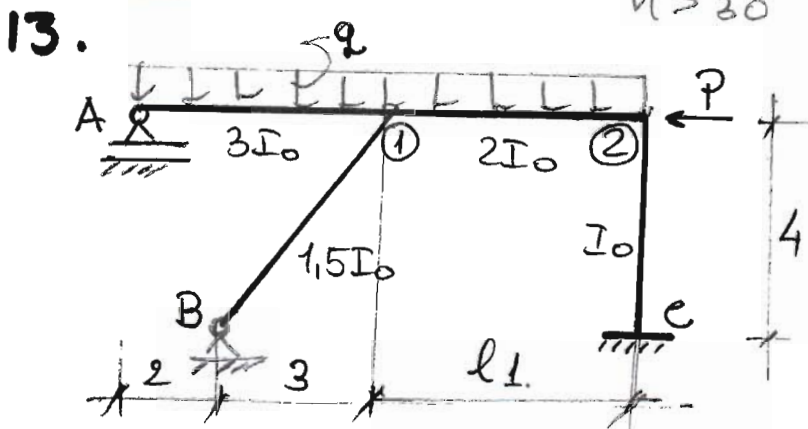
Notes! n este numărul de ordine din grup

A. Clasic



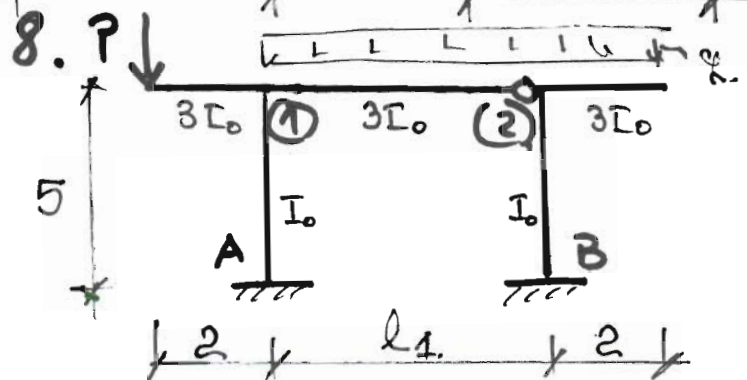
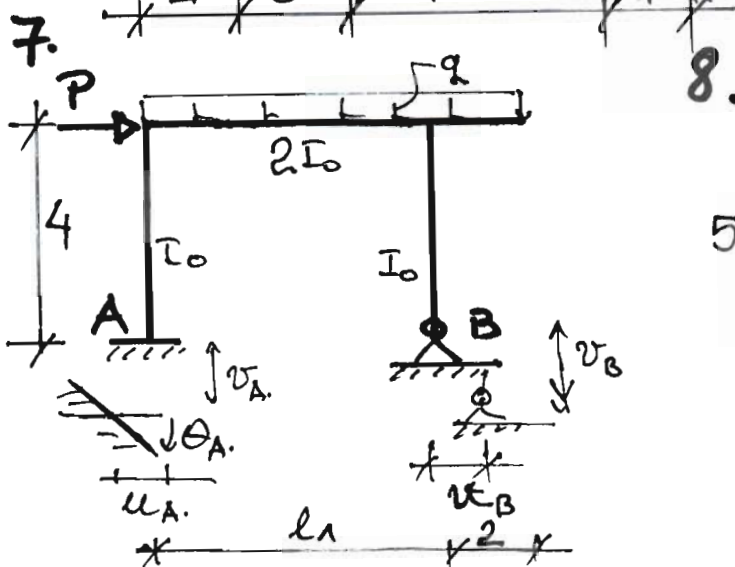
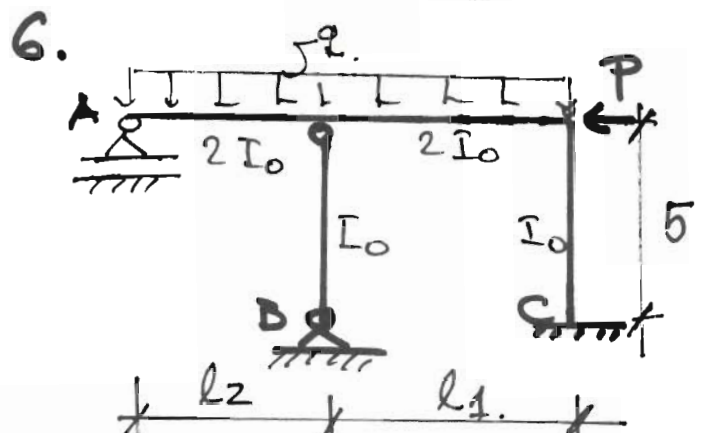
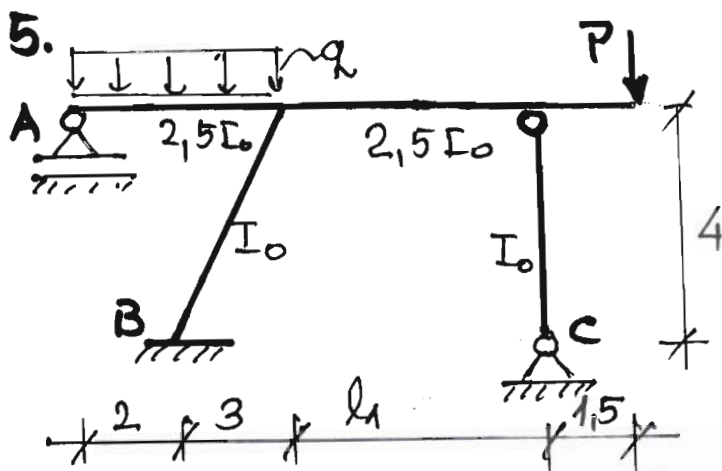
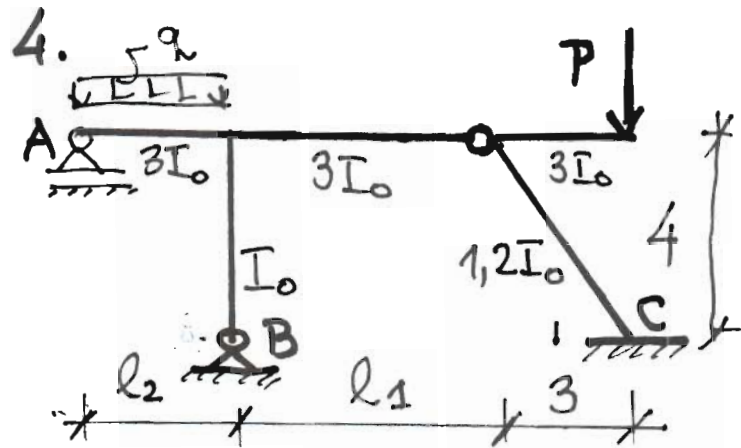
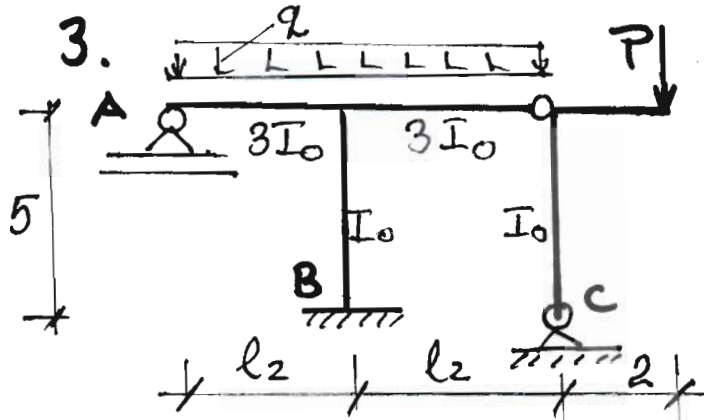
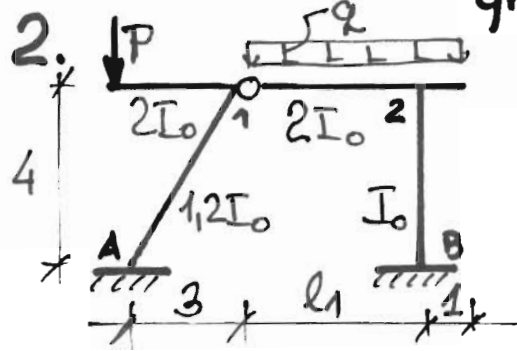
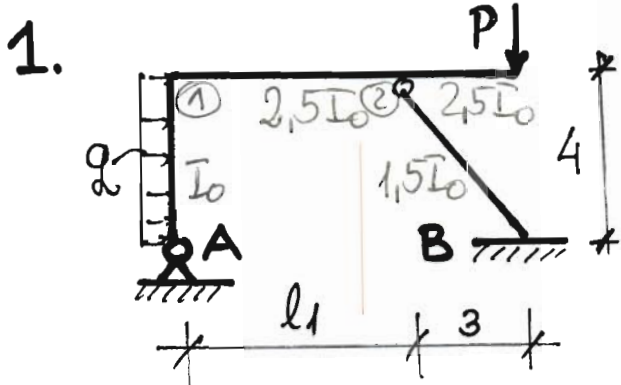
$n = 1 \div 10 : v_A = 0,5 + 0,05n \text{ (cm)} \quad \theta_A = 0,2n^\circ$   
 $n = 11 \div 20 : v_B = 0,05n \text{ (cm)} \quad \theta_A = 0,05n^\circ$   
 $n = 21 \div 30 : v_A = 0,02n \text{ (cm)} \quad v_B = 0,03n \text{ (cm)}$   
 $n > 30 : v_A = 0,02n \text{ (cm)} \quad \theta_A = 0,02n^\circ$

B. Iterativ (M. Cross)



# METODA FORȚELOR (EFORTURILOR)

gr. 32306



$$P = 9 + n \text{ (kN)}$$

$$q = 6 + n \text{ (kN/m)}$$

$$l_1 = 3 + 0,2n \text{ (m)}$$

$$l_2 = 1 + 0,2n \text{ (m)}$$

$$n = 1 \div 10 : v_A = 0,08n \text{ (cm)} \quad \theta_A = 0,1n^\circ$$

$$n = 11 \div 20 : v_B = 0,02n \text{ (cm)} \quad \theta_A = 0,05n^\circ$$

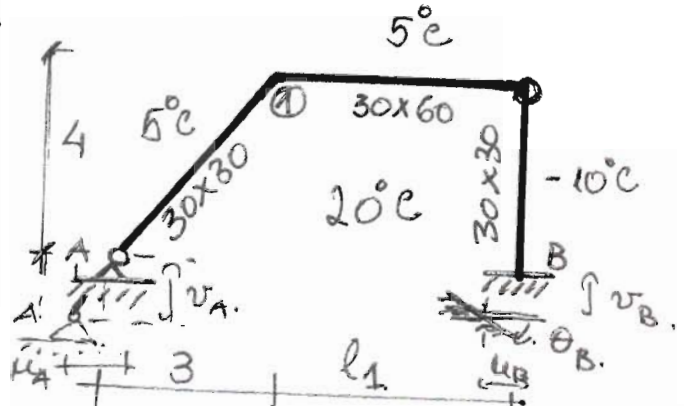
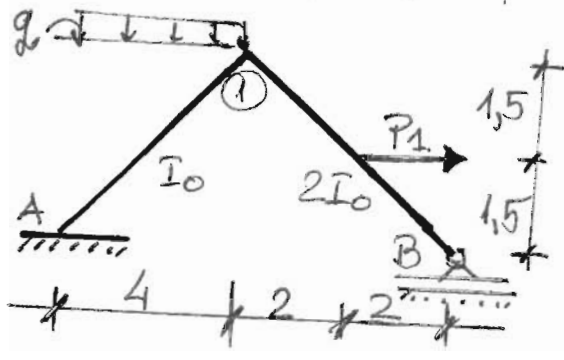
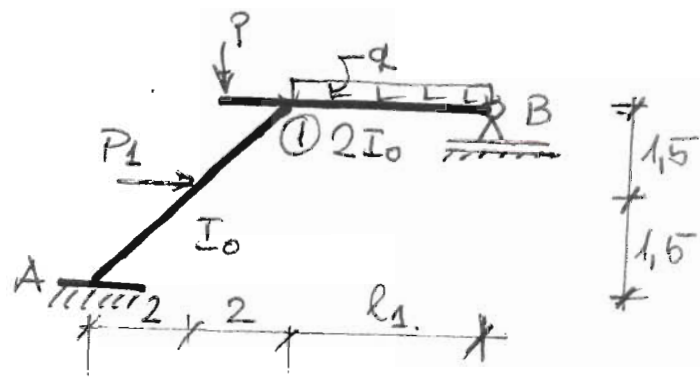
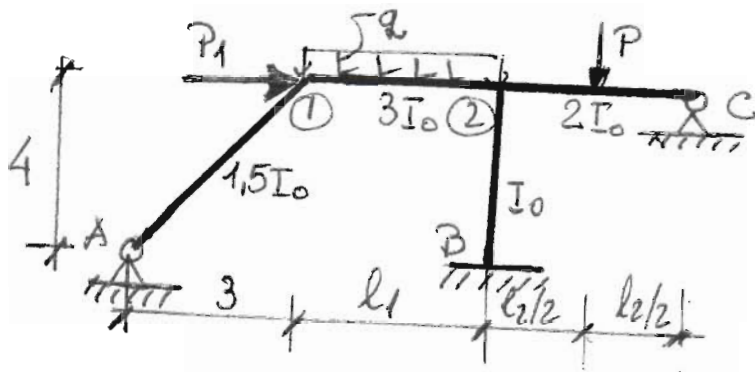
$$n = 21 \div 30 : u_A = 0,01n \text{ (cm)} \quad v_B = 0,02n \text{ (cm)}$$

$$n > 30 : u_B = 0,01n \text{ (cm)} \quad \theta_A = 0,02n^\circ$$

**! Nota!** n este numărul de ordine din grup

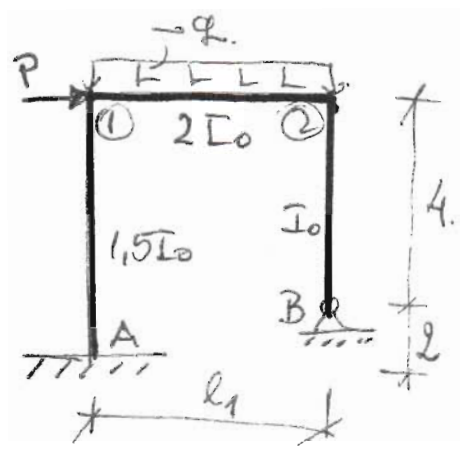
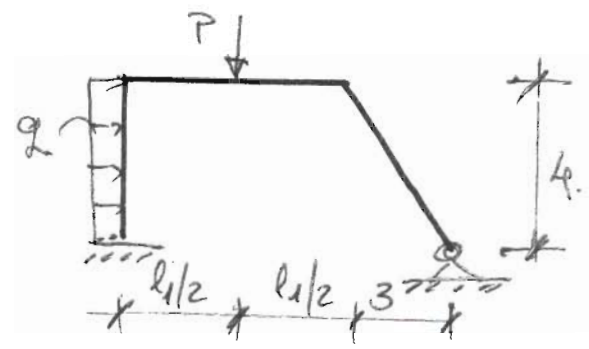
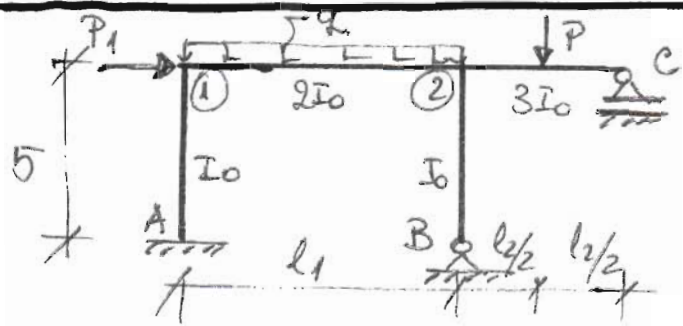
# METODA DEPLASĂRIILOR 32306

## A. Clasic.



$u = 1 \div 10 : v_A = 0,5 + 0,05u \text{ (cm)} ; \theta_B = 0,05u^\circ$   
 $u = 11 \div 20 : v_B = 0,05u \text{ (cm)} ; \theta_B = 0,05u^\circ$   
 $u = 21 \div 30 : u_B = 0,04u \text{ (cm)} ; \theta_B = 0,03u^\circ$   
 $u > 30 : u_A = 0,04u \text{ (cm)} ; v_B = 0,04u \text{ (cm)}$

## B. Iterativ în două etape (Metoda Cross)



Obs.

Valorile înscrisurilor și dimensiunile geometrice ale structurilor corinzi se ale de la M.F.