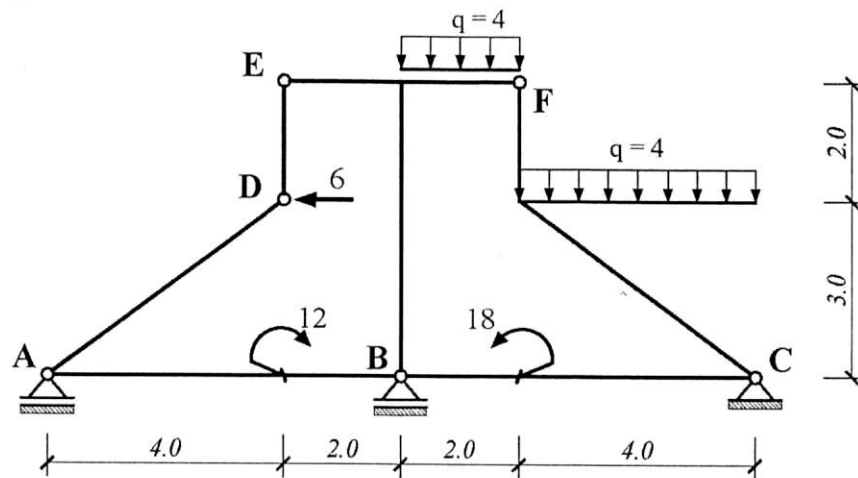


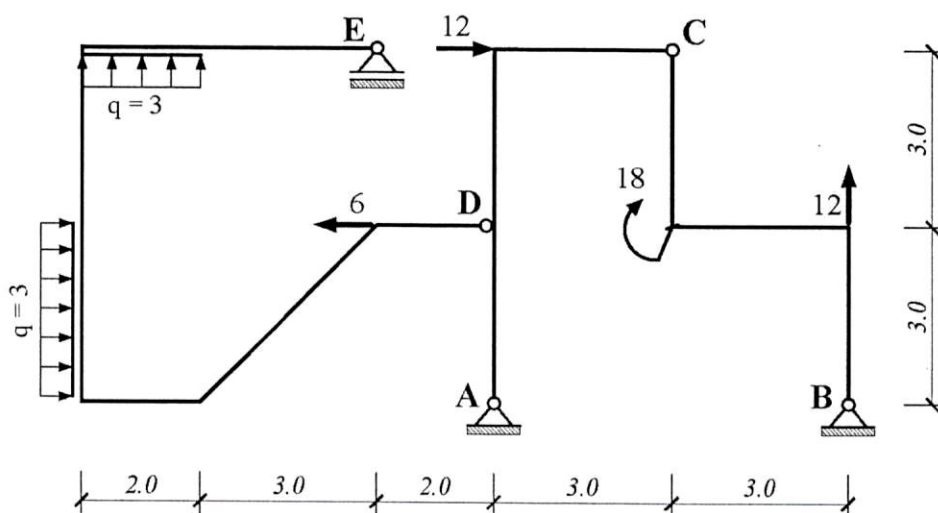
НАЦРТАТИ ДИЈАГРАМЕ СИЛА У ПРЕСЕКУ ЗА ПРИКАЗАНЕ НОСАЧЕ

ГРУПА **A**

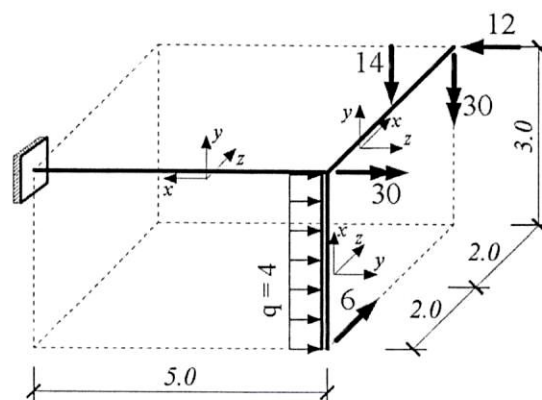
1.  
(44%)



2.  
(33%)



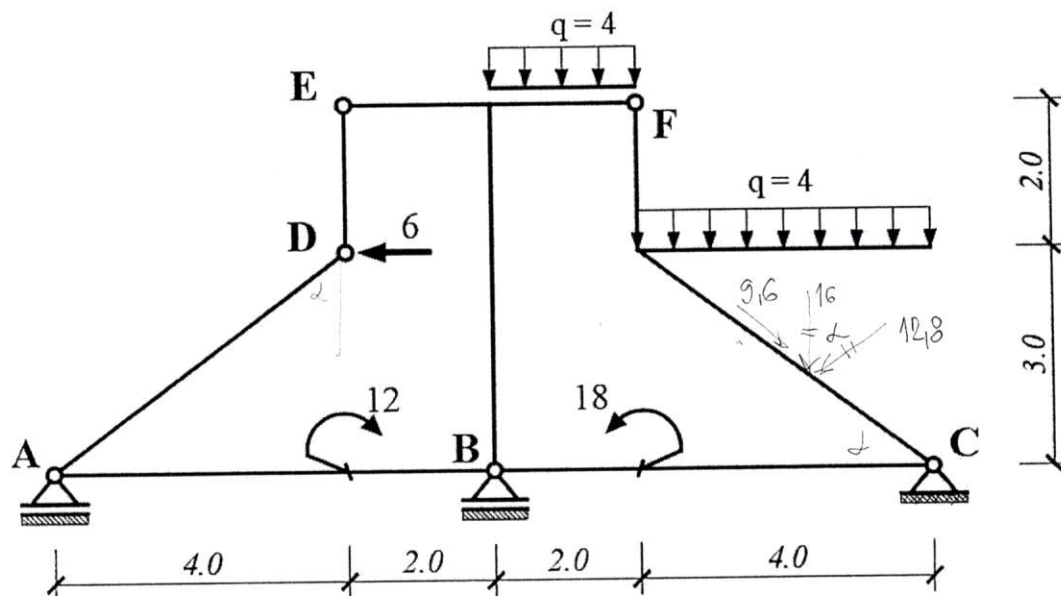
3.  
(23%)



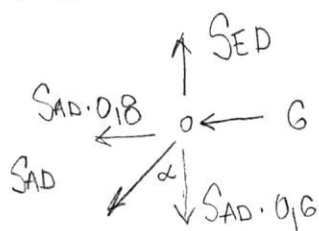
( kN, m )

Време предвиђено за израду испита: 2h 15min

**НАПОМЕНА:** Услов за полагање писменог дела испита је: » минимум 50% укупног броја поена,  
» минимум 50% тачан дијаграм момената у 1. или 2 зад.



(1) A-D-E



$$S_{AD} \cdot 0.8 + 6 = 0 \rightarrow S_{AD} = -7.5$$

$$S_{ED} = 0,6 S_{AD} \rightarrow S_{ED} = -4,5$$

(2)  $\triangle EOD \cong \triangle FOC$

$$\sum M_C = 0: 4,5 \cdot 8 - 8 \cdot 5 - 16 \cdot 2 + Y_B' \cdot 6 = 0$$

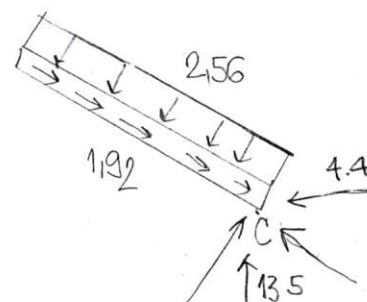
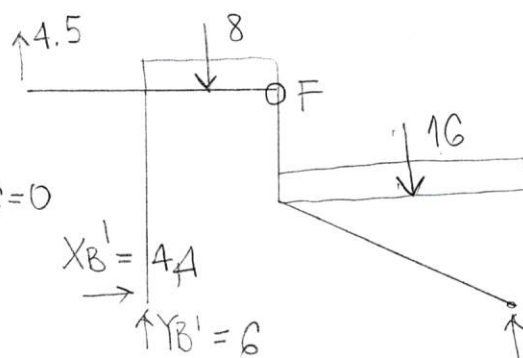
$$Y_B' = G$$

$$Y_C' = 13,50$$

$$\sum M_G = 0: 4.5 \cdot 4 - 8 \cdot 1 + 6 \cdot 2 - X_{B'} \cdot 5 = 0 \Rightarrow X_{B'} = 4,4$$

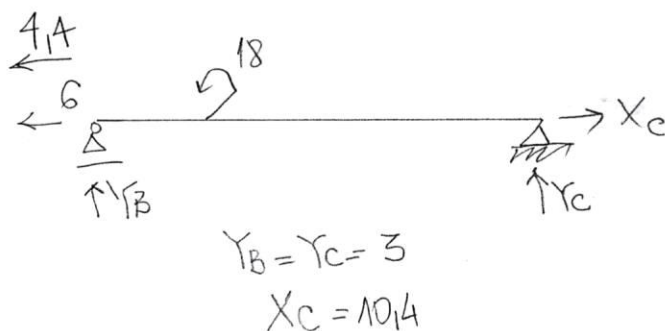
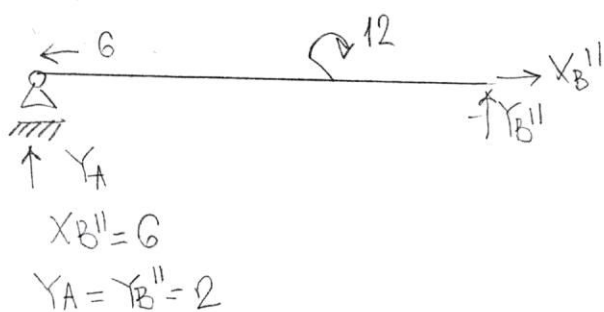
$$\Rightarrow X_{C1} = -4,4$$

(3)  $\Delta E_D$  A-B



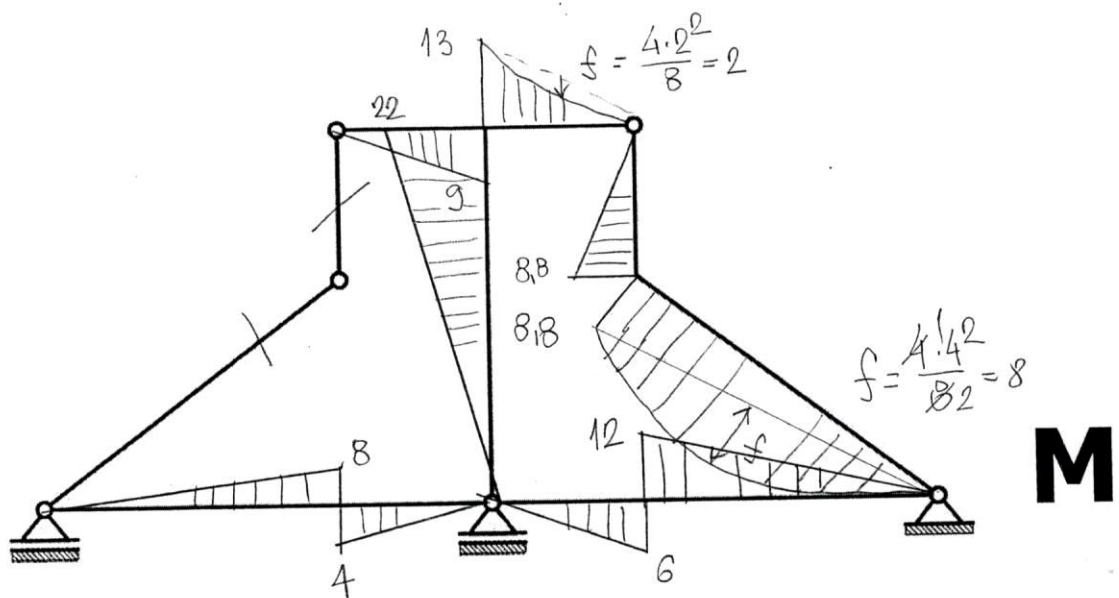
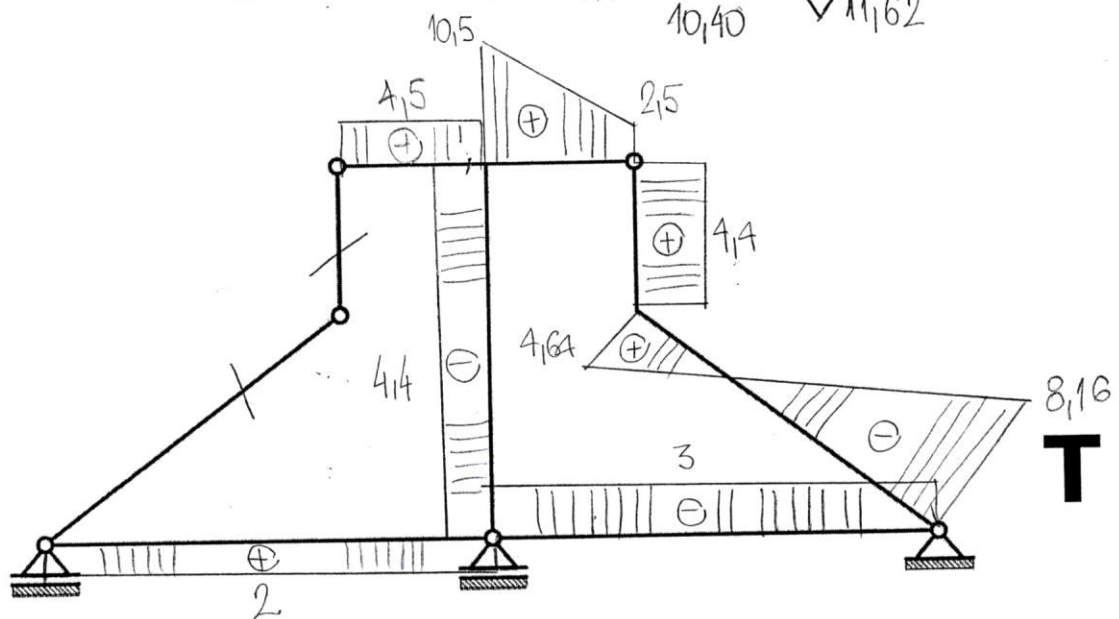
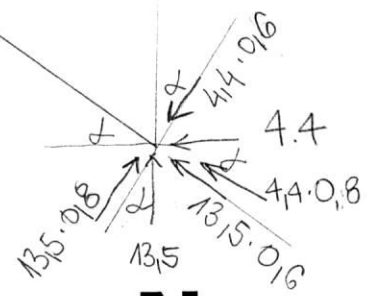
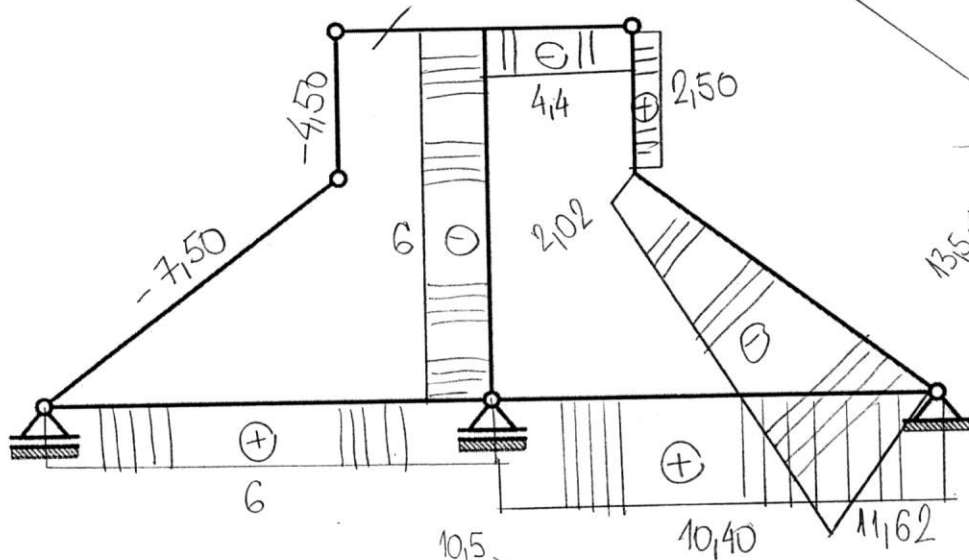
$\begin{array}{c} \nearrow \\ \uparrow Y_{C'} = 13,5 \end{array} \rightarrow X_{C'} \left( \begin{array}{c} \nwarrow \\ \swarrow 4,4 \end{array} \right)$

4) DEO B-C



$$\cos \alpha = 0,8$$

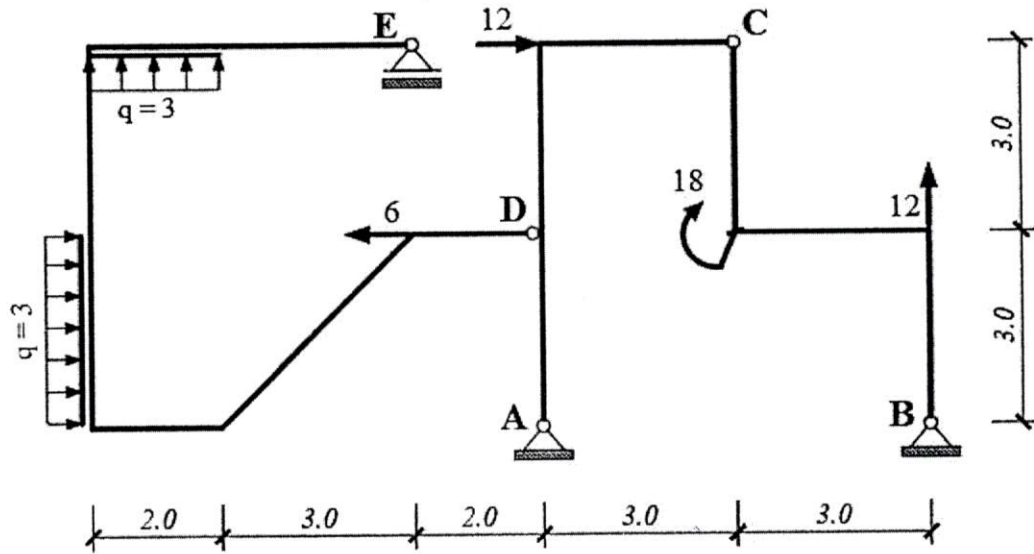
$$\sin \alpha = 0,6$$



$$f = \frac{4 \cdot 2^2}{8} = 2$$

$$f = \frac{4 \cdot 4^2}{82} = 8$$

2.

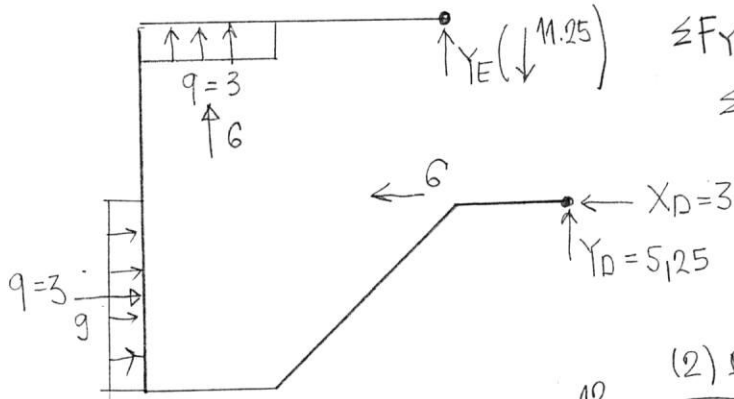


(1) DEO E-D:

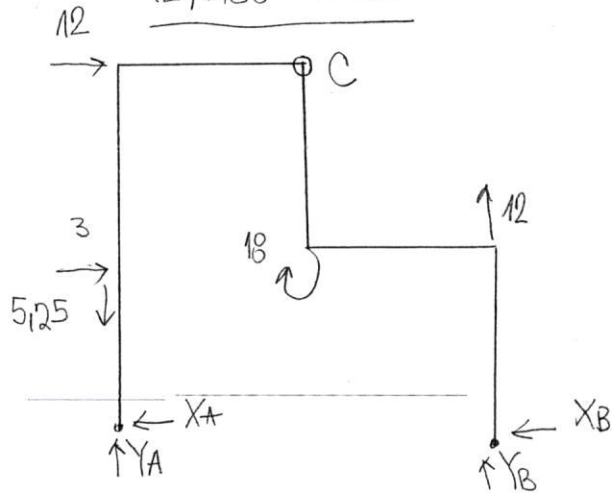
$$\sum \hat{M}_D = 0: 6 \cdot 6 - 9 \cdot 1.5 + Y_E \cdot 2 = 0 \Rightarrow Y_E = -11.25$$

$$\sum F_Y = 0 \Rightarrow Y_D = 5.25$$

$$\sum F_X = 0 \Rightarrow X_D = 3$$



(2) DEO AOB



$$\sum \hat{M}_A = 0: 18 + 12 \cdot 6 - 12 \cdot 6 + 3 \cdot 3 - Y_B \cdot 6 = 0$$

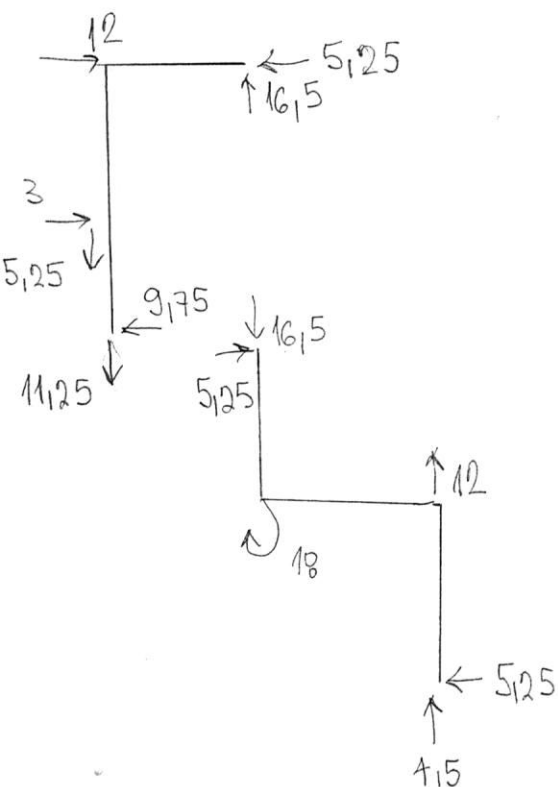
$$Y_B = 4.5$$

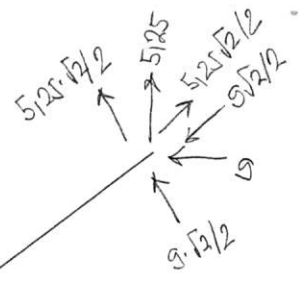
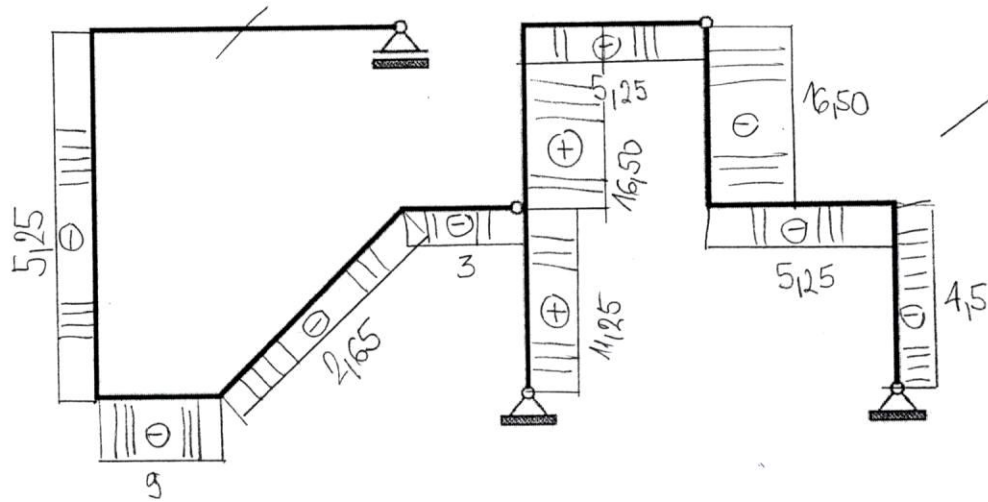
$$\sum F_Y = 0 \Rightarrow Y_A = -11.25$$

$$\sum \hat{M}_C = 0: 18 - 12 \cdot 3 - 4.5 \cdot 3 + X_B \cdot 6 = 0$$

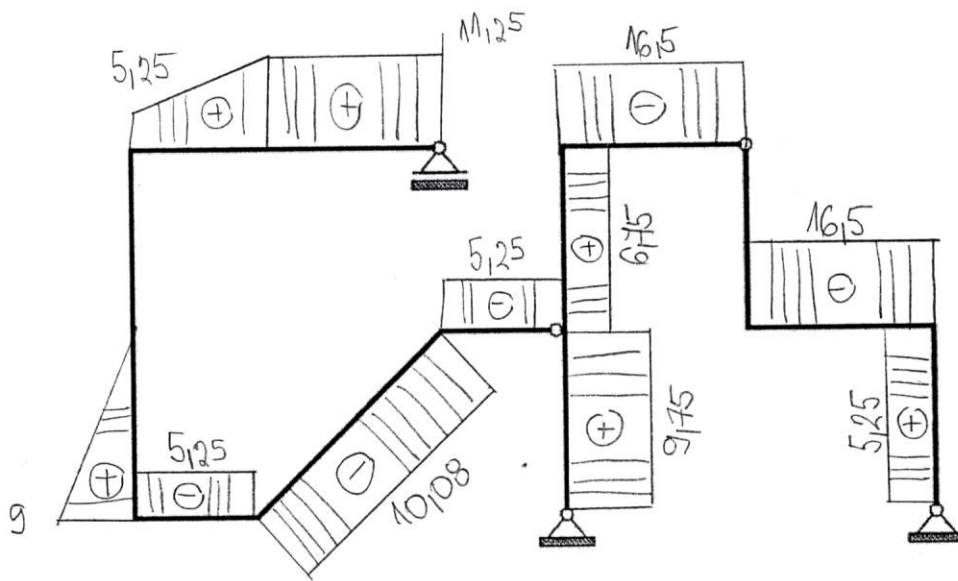
$$X_B = 5.25$$

$$\sum F_X = 0 \Rightarrow X_A = 9.75$$

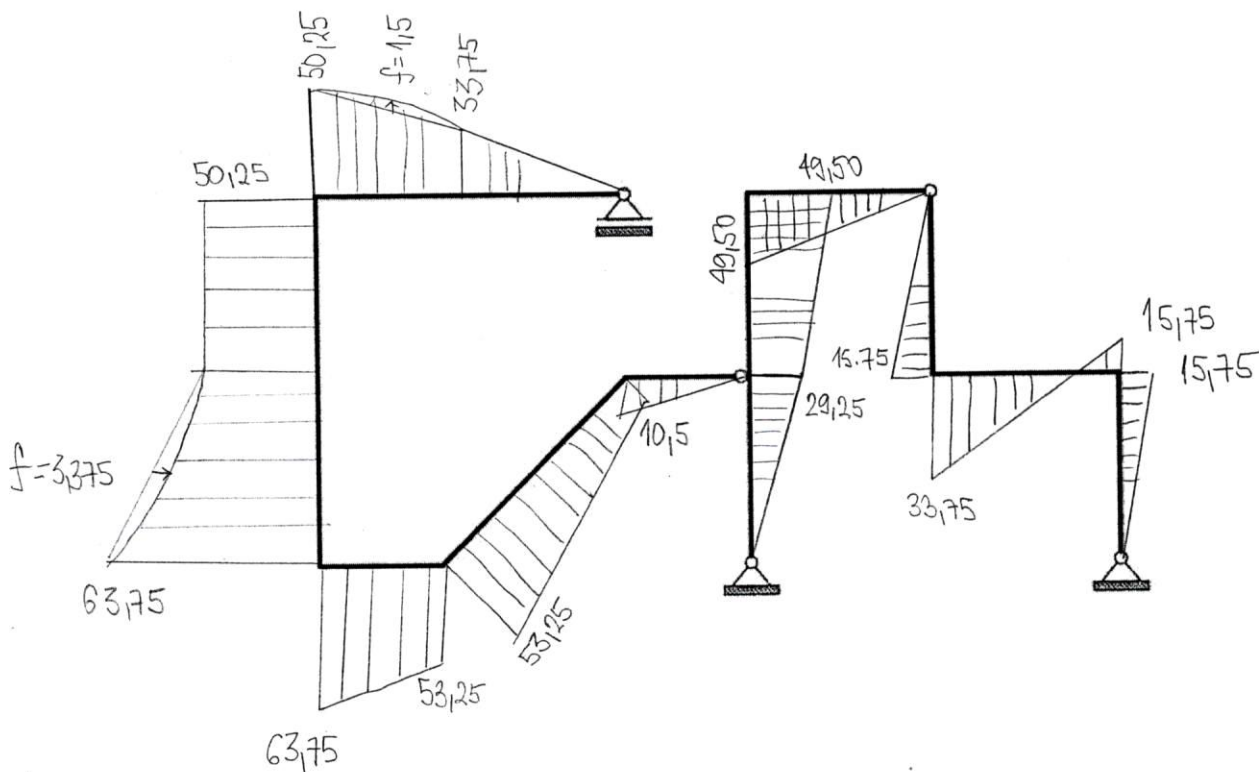




**N**



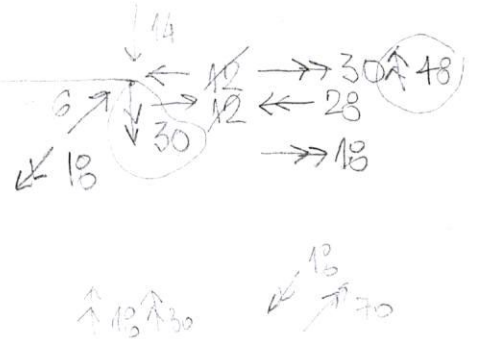
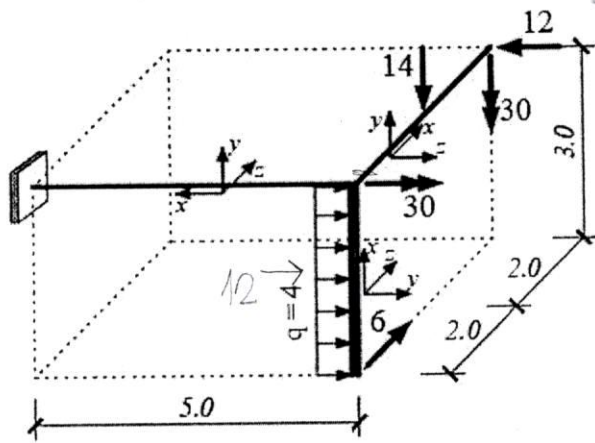
**T**



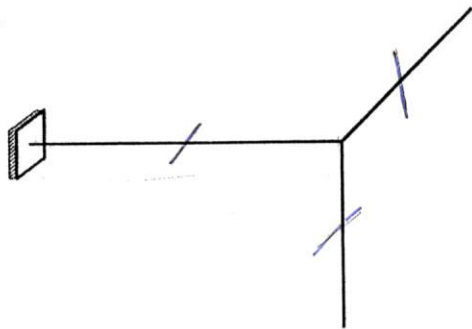
**M**



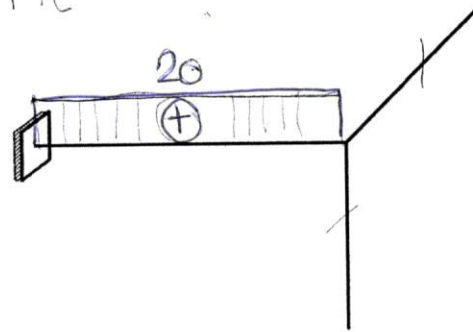
3.



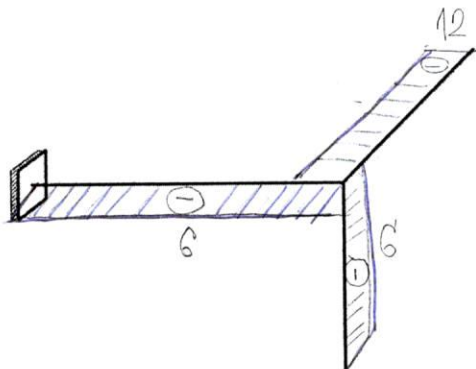
N



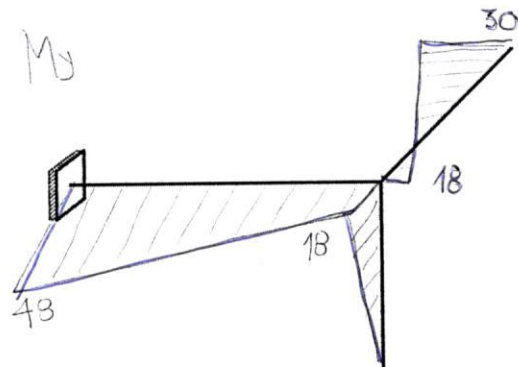
$M_t$



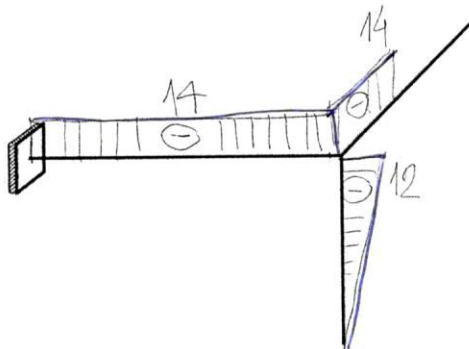
$M_y$



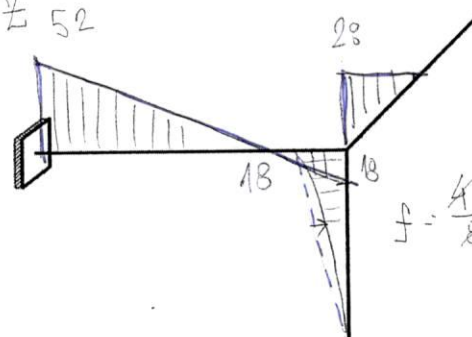
$M_z$



$T_y$



$M_z$  52



$$f = \frac{4.9}{82} = 4.5$$