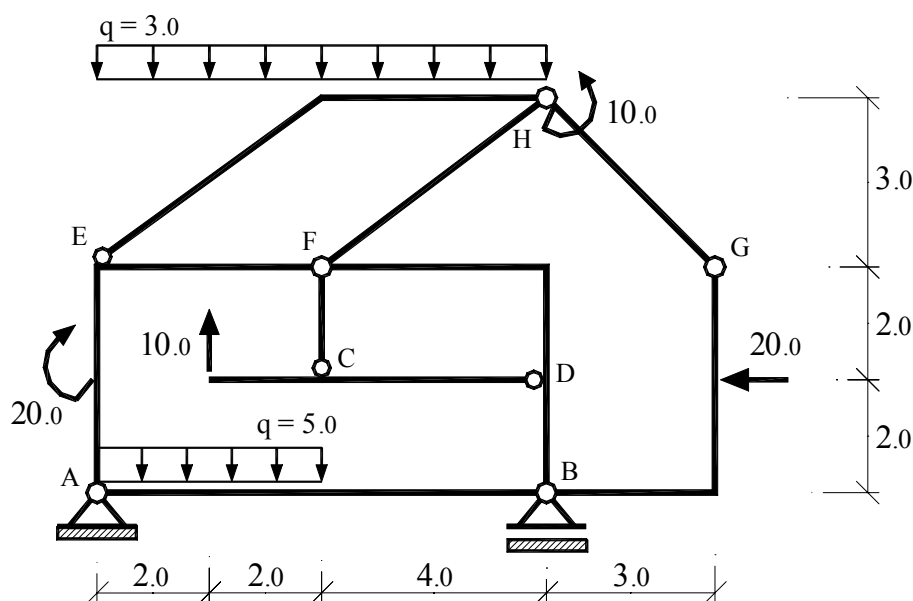
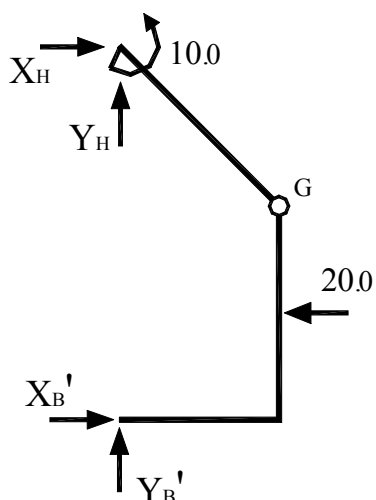


1.

ГРУПА **A**

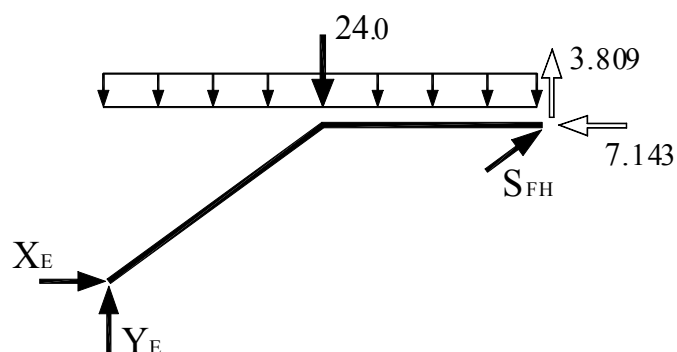
део В - G - H

$$\sum M_B = 0 \quad \Rightarrow \quad X_H = 7.143$$

$$\sum X = 0 \quad \Rightarrow \quad X_B' = 12.857$$

$$\sum M_G^{\text{rope}} = 0 \Rightarrow Y_H = -3.809$$

$$\sum Y = 0 \quad \Rightarrow \quad Y_B' = 3.809$$

део Е - Н - F

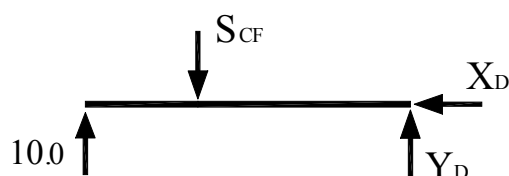
$$\Sigma M_E = 0 \Rightarrow S_{FH} = 18.375$$

(0.8 · S<sub>FH</sub> = 14.7; 0.6 · S<sub>FH</sub> = 11.025)

$$\sum Y = 0 \quad \Rightarrow \quad Y_E = 9.166$$

$$\sum X = 0 \Rightarrow X_E = -7.557$$

део F - C - D

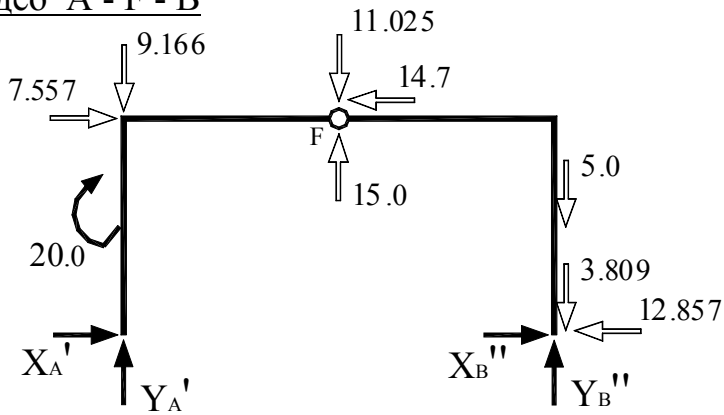


$$\sum M_D = 0 \quad \Rightarrow \quad S_{CF} = 15.0$$

$$\sum Y = 0 \quad \Rightarrow \quad Y_D = 5.0$$

$$\Sigma X = 0 \quad \Rightarrow \quad X_D = 0$$

део A - F - B



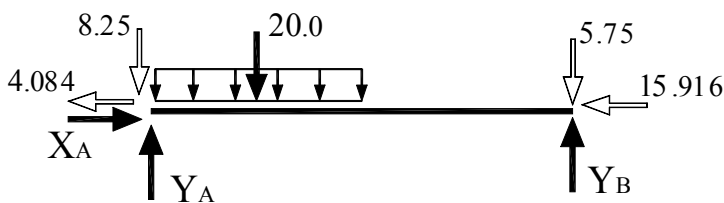
$$\sum M_A = 0 \Rightarrow Y_B'' = 5.75$$

$$\sum Y = 0 \Rightarrow Y_A' = 8.25$$

$$\sum M_F^{\text{dec}} = 0 \Rightarrow X_B'' = 15.916$$

$$\sum X = 0 \Rightarrow X_A' = 4.804$$

део A - B

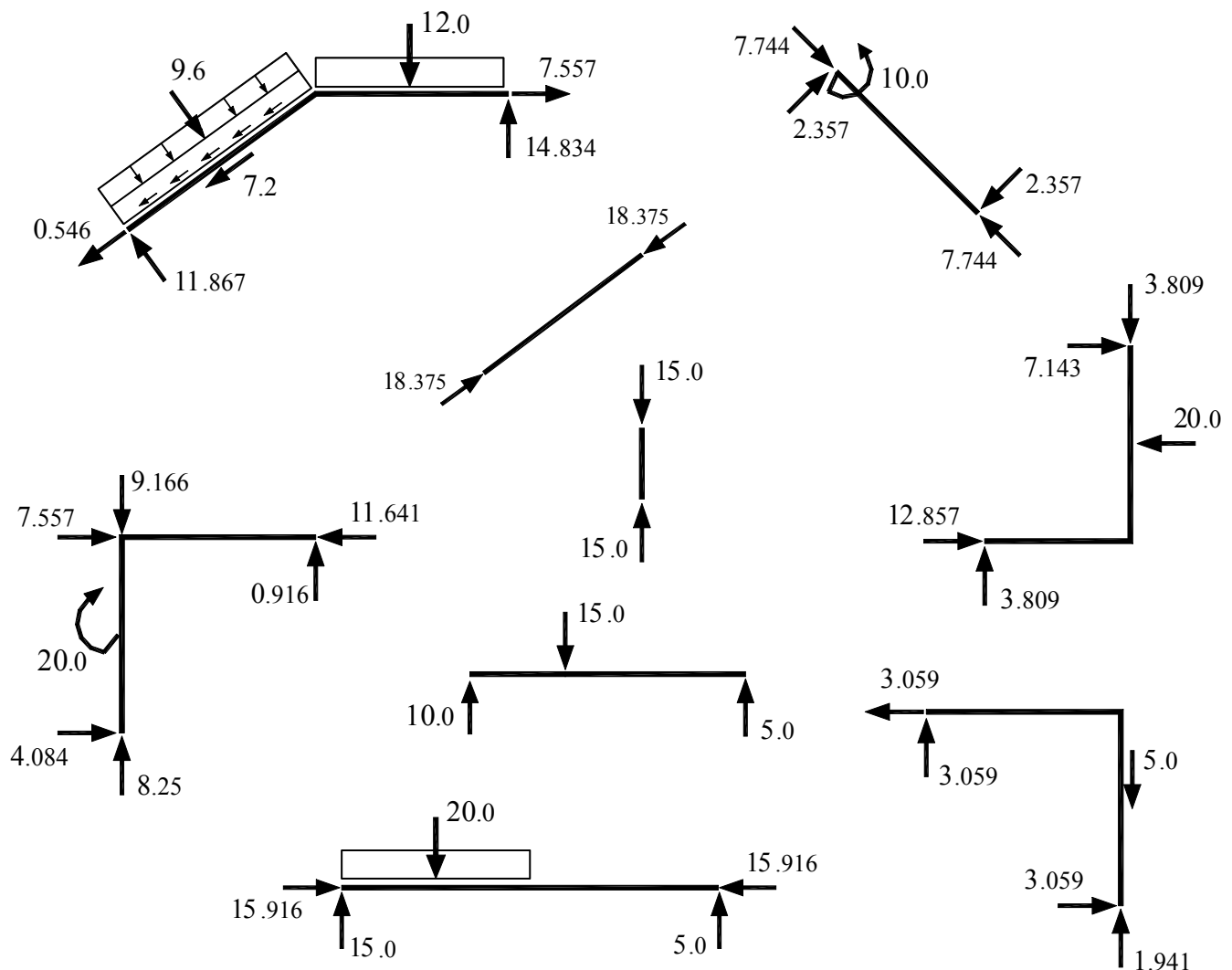


$$\sum M_A = 0 \Rightarrow Y_B = 10.75$$

$$\sum Y = 0 \Rightarrow Y_A = 23.25$$

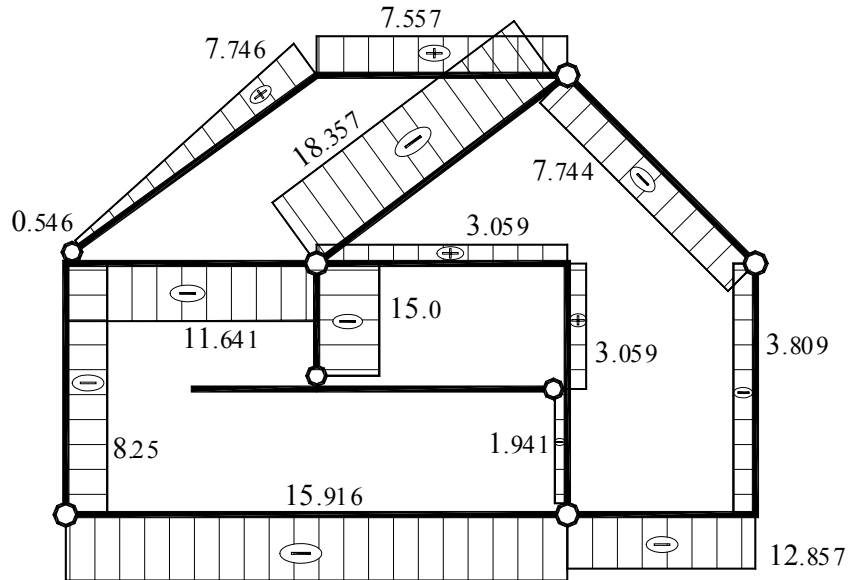
$$\sum X = 0 \Rightarrow X_A = 20.0$$

Стварни смерови сила и оптерећења на крајевима плоча

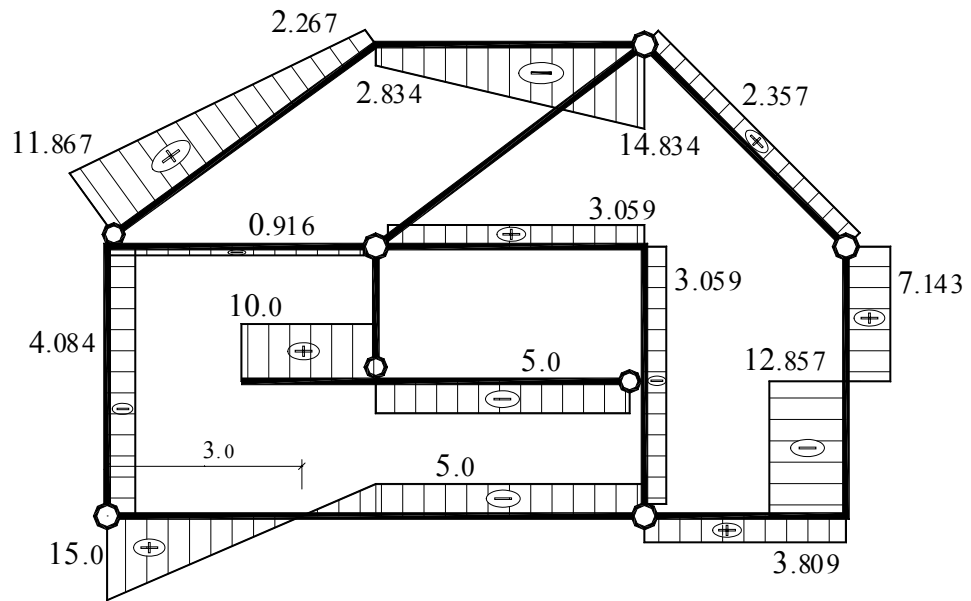


# ДИАГРАМИ ПРЕСЕЧНИХ СИЛА

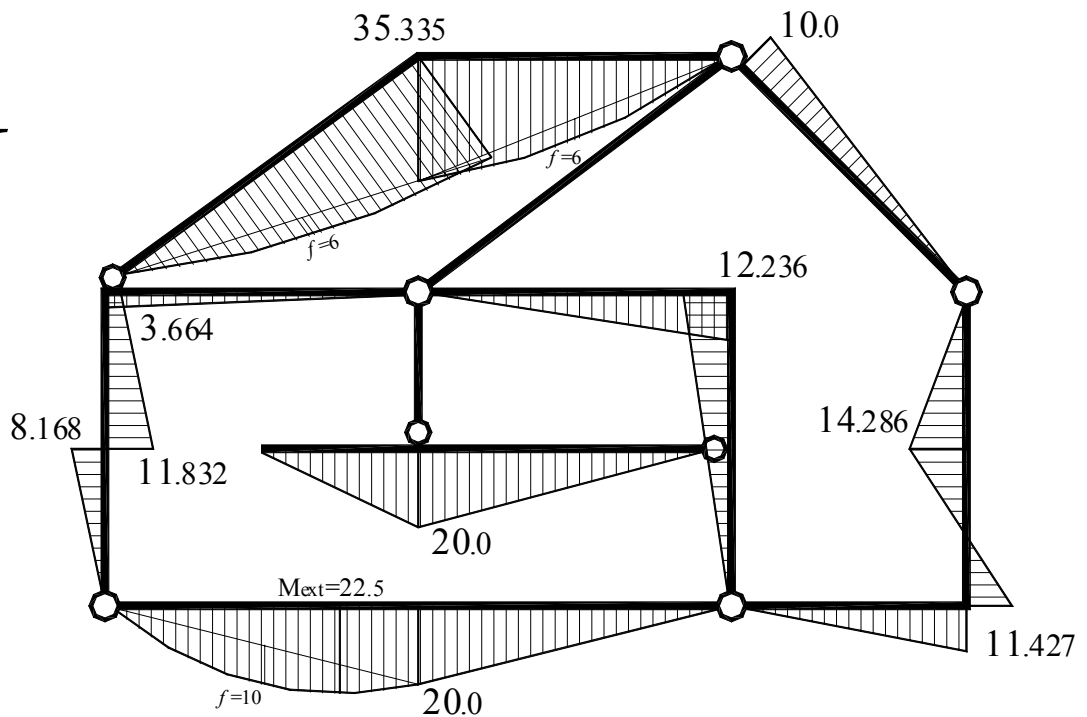
*N*



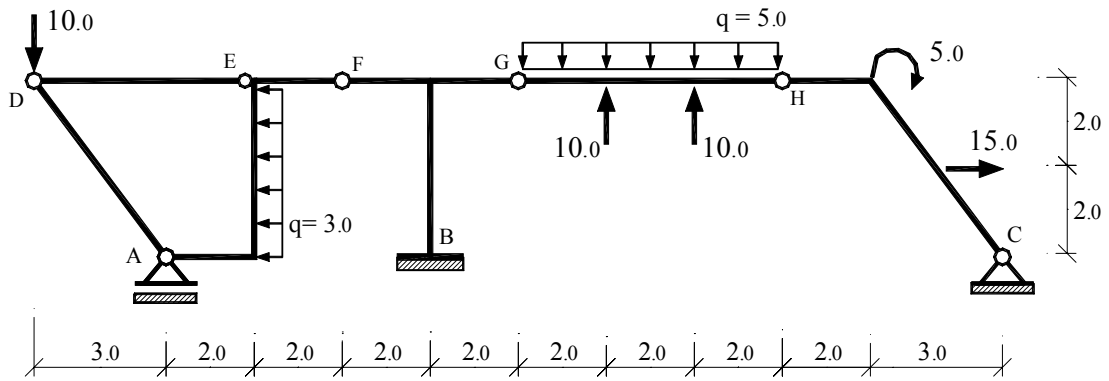
*T*



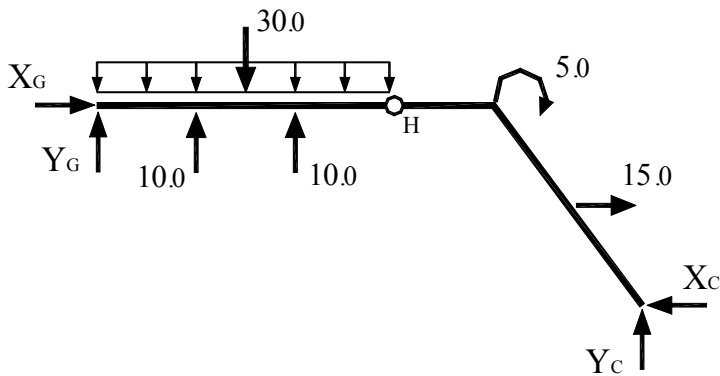
*M*



2.



део G - H - C



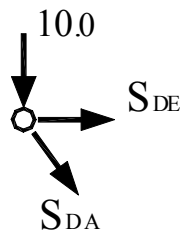
$$\sum M_H^{\text{лево}} = 0 \Rightarrow Y_G = 5.0$$

$$\sum Y = 0 \Rightarrow Y_C = 5.0$$

$$\sum M_H^{\text{дес}} = 0 \Rightarrow X_C = 12.5$$

$$\sum X = 0 \Rightarrow X_G = -2.5$$

равнотежа чвора D

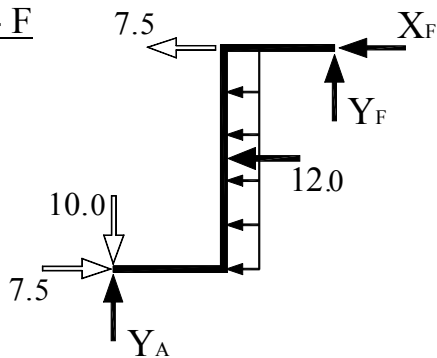


$$\sum Y = 0 \Rightarrow S_{DA} = -12.5$$

(0.8 · S<sub>DA</sub> = 10.0; 0.6 · S<sub>DA</sub> = 7.5)

$$\sum X = 0 \Rightarrow S_{DE} = 7.5$$

део A - F

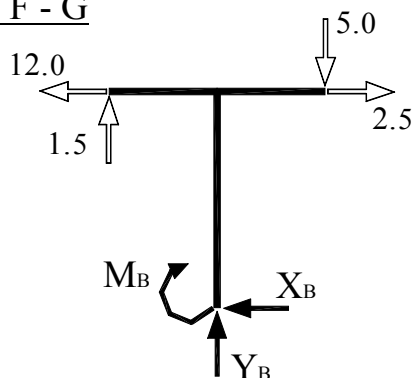


$$\sum M_F = 0 \Rightarrow Y_A = 11.5$$

$$\sum Y = 0 \Rightarrow Y_F = -1.5$$

$$\sum X = 0 \Rightarrow X_F = 12.0$$

део B - F - G

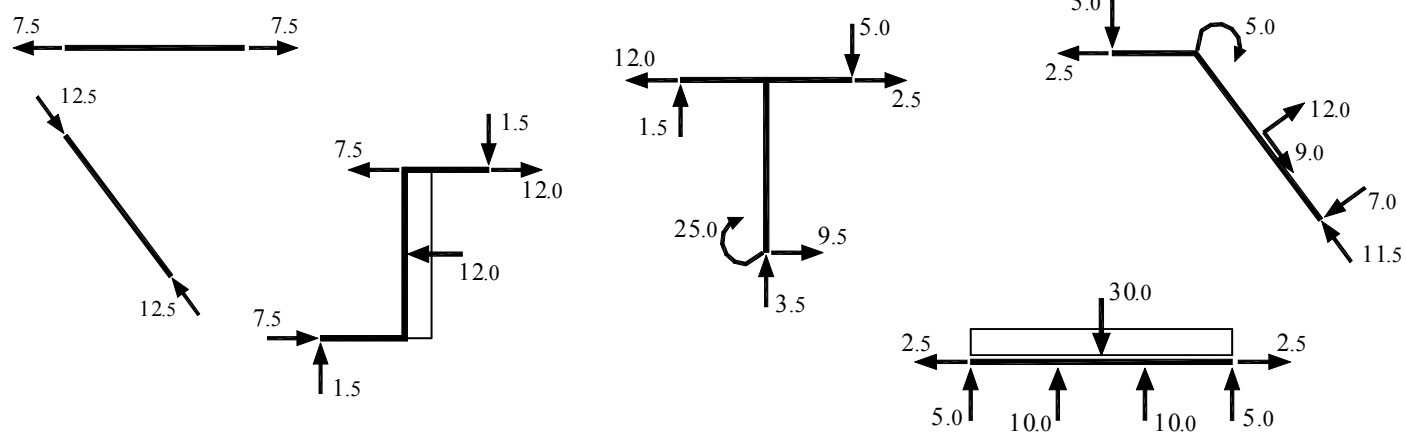


$$\sum M_B = 0 \Rightarrow M_B = 25.0$$

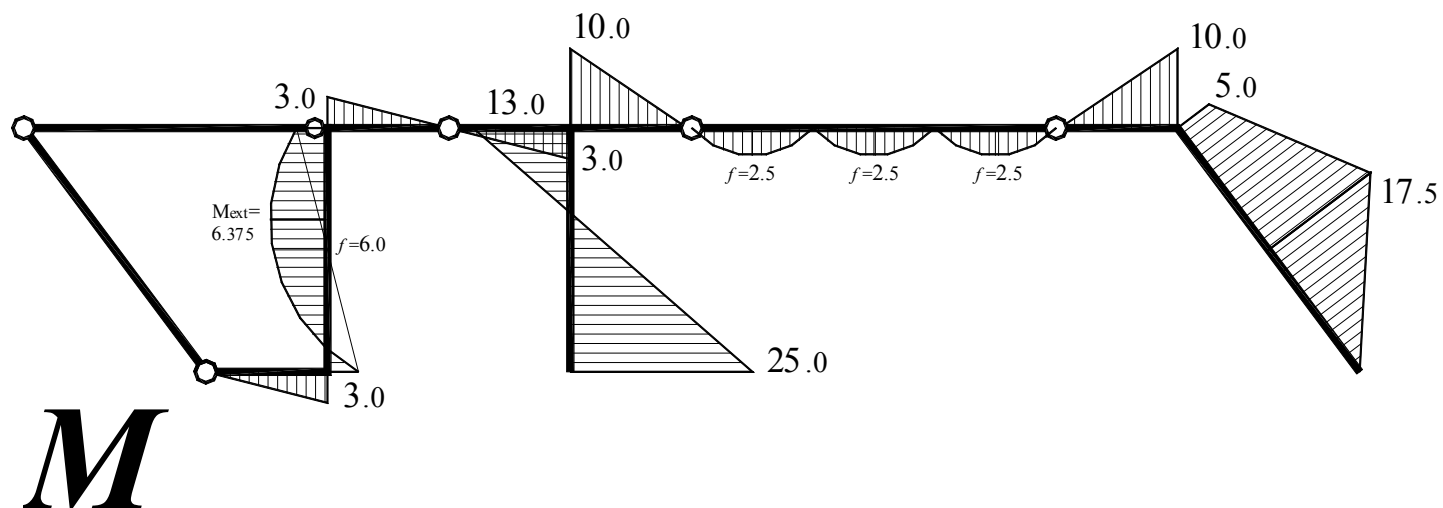
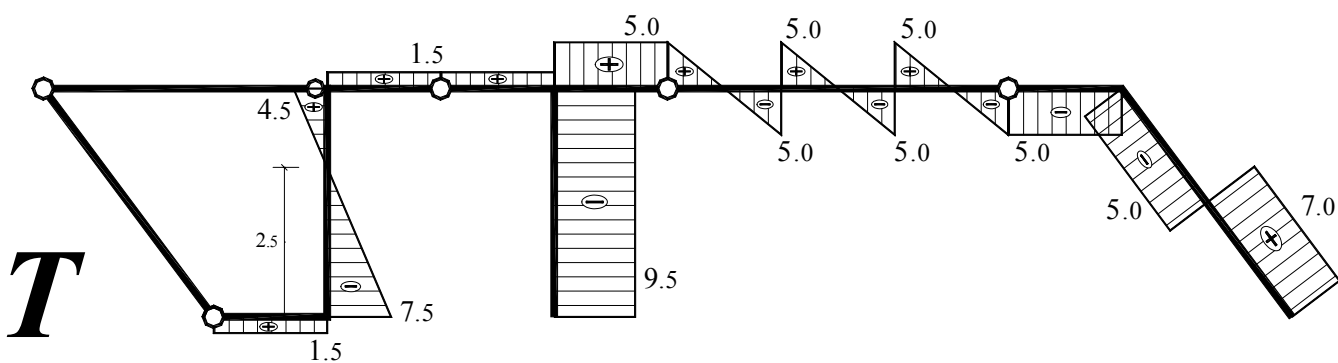
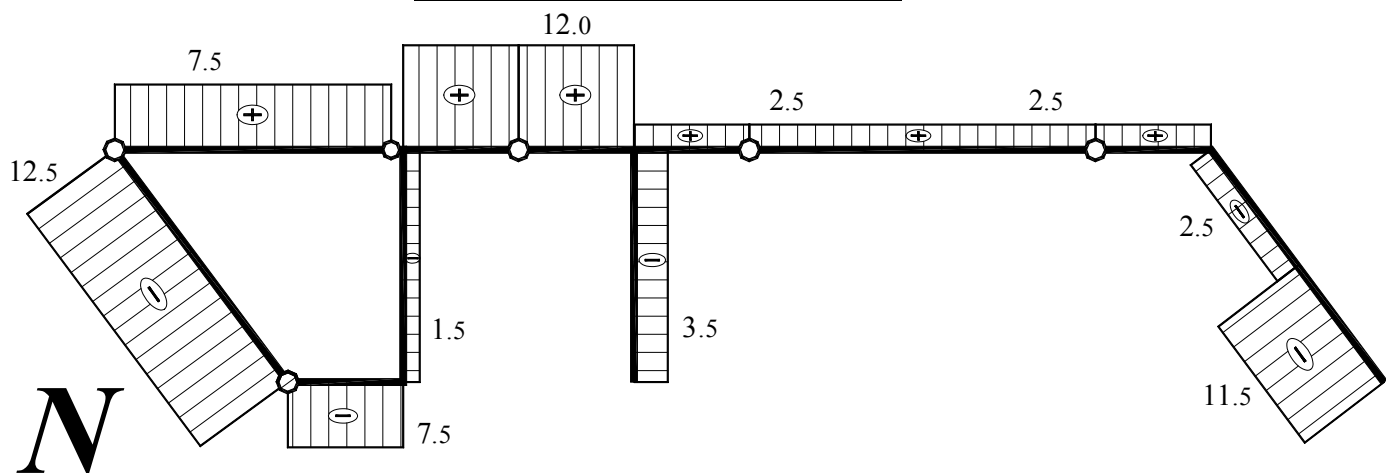
$$\sum Y = 0 \Rightarrow Y_B = 3.5$$

$$\sum X = 0 \Rightarrow X_B = -9.5$$

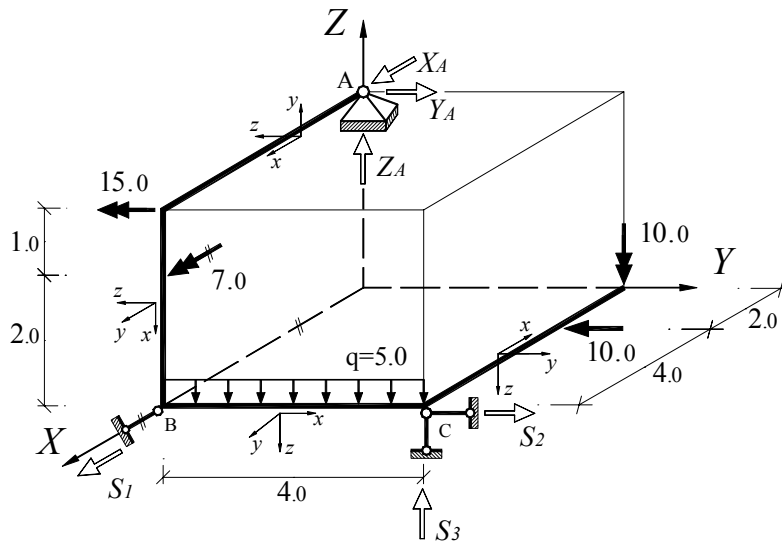
# Стварни смерови сила и оптерећења на крајевима плоча



## ДИЈАГРАМИ ПРЕСЕЧНИХ СИЛА



3.



$$\sum X = 0: X_A + S_1 = 0$$

$$X_A = -11.0$$

$$\sum Y = 0: Y_A + S_2 - 10 = 0$$

$$Y_A = 5.0$$

$$\sum Z = 0: Z_A + S_3 - 20 = 0$$

$$\Rightarrow Z_A = 8.0$$

$$\sum M_X = 0: -Y_A \cdot 3 + S_3 \cdot 4 - 20 \cdot 2 + 7 = 0$$

$$S_1 = 11.0$$

$$\sum M_Y = 0: X_A \cdot 3 - S_3 \cdot 6 + 20 \cdot 6 - 15 = 0$$

$$S_2 = 5.0$$

$$\sum M_Z = 0: S_2 \cdot 6 - 10 \cdot 2 - 10 = 0$$

$$S_3 = 12.0$$

