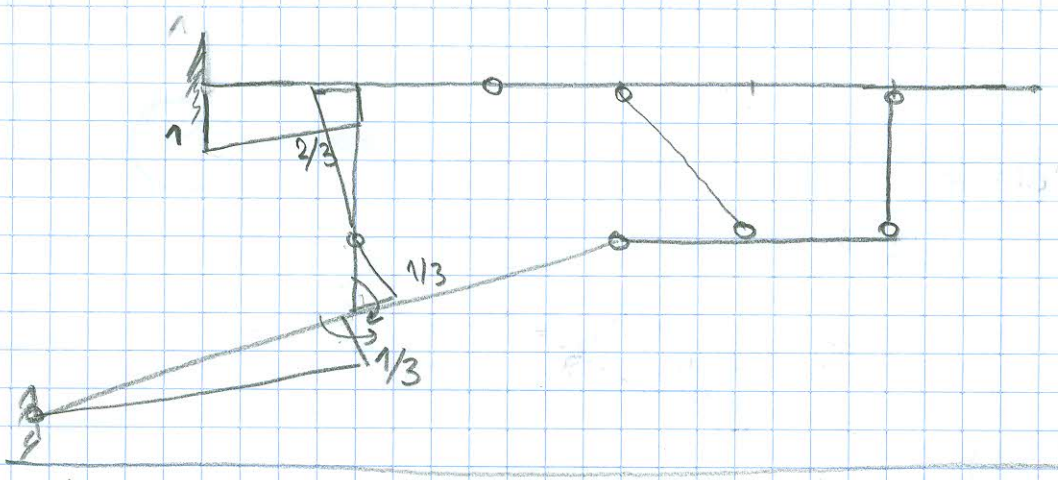
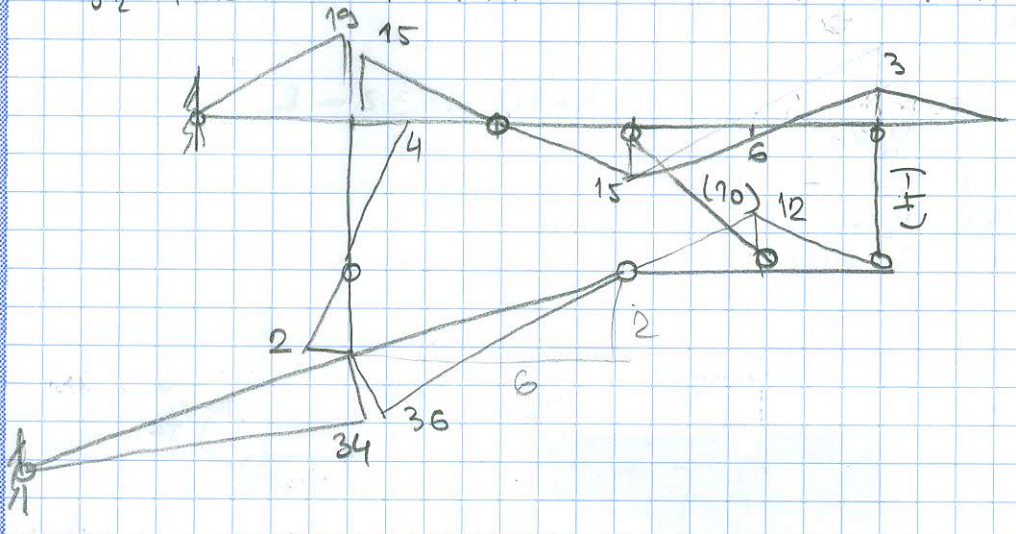


$\bar{M}_1$

$X^*_{f_2}$ FIKTIVNI POZITIVNI MOMENT ⟹ POZITIVNOS VERT. SILI ↓

$\bar{M}_2 = \frac{1}{150} M$



$\bar{M}_2$

$$X_{f_1} = \frac{1}{EI_z} \int M \bar{M}_1 \, ds \qquad \frac{l}{6} a (2c + d)$$

$$X^*_{f_1} = \int M \bar{M}_1 \, ds = \left[\frac{3}{6} 19 \left(2 \cdot \frac{2}{3} + 1 \right) - \frac{4}{3} \cdot 4 \cdot \frac{2}{3} - \frac{2}{3} \cdot 2 \cdot \frac{1}{3} + \frac{\sqrt{40}}{3} \cdot 34 \cdot \frac{1}{3} \right] \cdot 150$$

$$= -341,08531185$$

$$X^*_{f_2} = \int M \bar{M}_2 \, ds =$$

$$= \left[\frac{3}{3} \cdot 19^2 + \frac{3}{3} \cdot 15^2 \cdot 2 + \frac{6}{3} \left(3^2 - 3 \cdot 15 + 15^2 \right) + \frac{3}{3} 3^3 + \frac{2}{3} \cdot 3 \cdot 12^2 + \right.$$

$$\left. + \frac{6}{3} \left(4^2 - 4 \cdot 2 + 2^2 \right) + \frac{\sqrt{40}}{3} \cdot 34^2 + \frac{\sqrt{40}}{3} \cdot 36^2 \right] \cdot 150 = 1001890,482$$