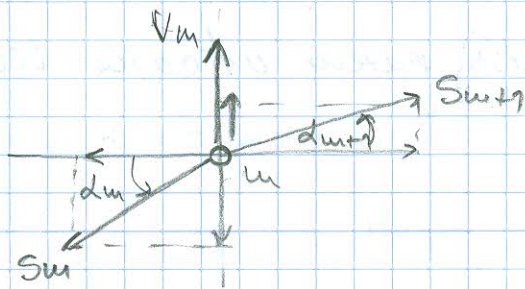


$$M_c = M_{g,0} + H \cdot y_c$$

$$M_g = M_{g,0} + H \cdot f = 0$$

$$H = -\frac{M_{g,0}}{f} = -\frac{1200}{\frac{66}{7}} = -127,27 \text{ kN}$$

$$H = -127,27 \text{ kN}$$

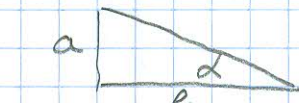


$$\sum H = 0$$

$$S_{m+1} \cdot \cos \alpha_{m+1} - S_m \cos \alpha_m = 0$$

$$S_{m+1} \cos \alpha_{m+1} = S_m \cos \alpha_m = H$$

$$S_m = \frac{H}{\cos \alpha_m}$$



$$\tan \alpha = \frac{a}{b} \quad \cos \alpha = \frac{b}{\sqrt{a^2 + b^2}}$$

$$\sum V = 0 \quad V_m + S_{m+1} \sin \alpha_{m+1} - S_m \sin \alpha_m = 0$$

$$V_m + \frac{H}{\cos \alpha_{m+1}} \cdot \sin \alpha_{m+1} - \frac{H}{\cos \alpha_m} \cdot \sin \alpha_m = 0$$

$$V_m = H (\tan \alpha_m - \tan \alpha_{m+1})$$

$$\tan \alpha_1 = \frac{3}{3} = 1$$

$$\cos \alpha_1 = \frac{3}{3\sqrt{2}} = \frac{1}{\sqrt{2}}$$

$$S_1 = -179,3916 \text{ kN} \quad V_1 = -63,63 \text{ kN}$$

$$\tan \alpha_2 = \frac{3}{6} = \frac{1}{2}$$

$$\cos \alpha_2 = \frac{6}{3\sqrt{5}} = \frac{2}{\sqrt{5}}$$

$$S_2 = -142,295 \text{ kN} \quad V_2 = -21,21 \text{ kN}$$

$$\tan \alpha_3 = \frac{2}{6} = \frac{1}{3}$$

$$\cos \alpha_3 = \frac{6}{\sqrt{10}}$$

$$S_3 = -134,157 \text{ kN} \quad V_3 = -21,21 \text{ kN}$$

$$\tan \alpha_4 = \frac{1}{6}$$

$$\cos \alpha_4 = \frac{6}{\sqrt{37}}$$

$$S_4 = -129,028 \text{ kN} \quad V_4 = -42,42 \text{ kN}$$

$$\tan \alpha_5 = -\frac{1}{6}$$

$$\cos \alpha_5 = \frac{6}{\sqrt{37}}$$

$$S_5 = -129,028 \text{ kN} \quad V_5 = -21,21 \text{ kN}$$

$$\tan \alpha_6 = -\frac{2}{6} = -\frac{1}{3}$$

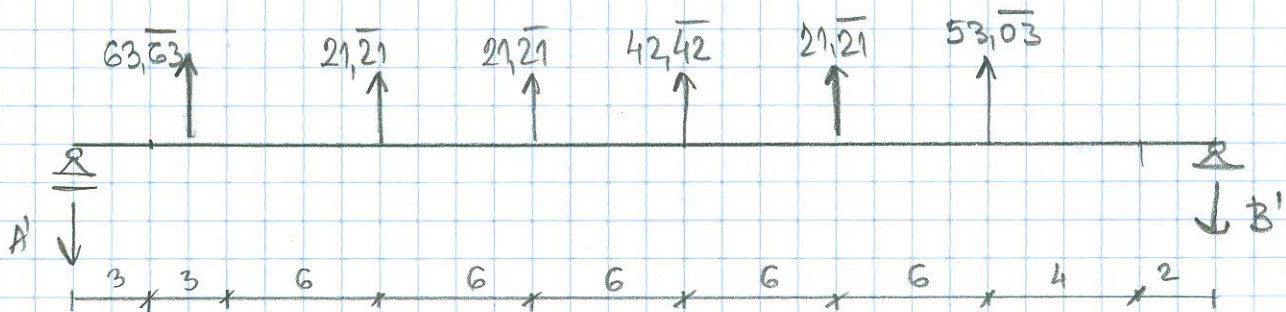
$$\cos \alpha_6 = \frac{6}{\sqrt{10}}$$

$$S_6 = -134,157 \text{ kN} \quad V_6 = -53,03 \text{ kN}$$

$$\tan \alpha_7 = -\frac{3}{4}$$

$$\cos \alpha_7 = \frac{4}{5} = 0,8$$

$$S_7 = 159,09 \text{ kN}$$



$$\sum M_{B'} = 0 \quad -A' \cdot 42 + 63,63 \cdot 36 + 21,21(30 + 24 + 12) + 42,42 \cdot 18 + 53,03 \cdot 6 = 0$$

$$A' = 113,63 \text{ kN}$$

$$\sum V = 0 \quad 63,63 + 3 \cdot 21,21 + 42,42 + 53,03 - A' - B' = 0$$

$$B' = 109,09 \text{ kN}$$