

$$\sum H = 0 \quad S_1 \cos \alpha_1 = S_2 \cos \alpha_2 - H$$

$$S_1 = \frac{H}{\cos \alpha_1} \quad S_2 = \frac{H}{\cos \alpha_2}$$

$$\sum V = 0$$

$$V_m - S_1 \sin \alpha_1 + S_2 \sin \alpha_2 = 0$$

$$V_m = \frac{H}{\cos \alpha_1} \sin \alpha_1 - \frac{H}{\cos \alpha_2} \sin \alpha_2$$

$$V_m = H (\tan \alpha_1 - \tan \alpha_2)$$

$$\tan \alpha_1 = \frac{2}{2} = 1$$

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

$$S_1 = -67,128$$

$$V_1 = -23,73^\circ$$

$$\tan \alpha_2 = \frac{2}{4} = \frac{1}{2}$$

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

$$S_2 = -53,0693$$

$$V_2 = -23,73^\circ$$

$$\tan \alpha_3 = 0$$

$$\cos \alpha_3 = 1$$

$$S_3 = -47,46^\circ$$

$$V_3 = -23,73^\circ$$

$$\tan \alpha_4 = -\frac{2}{4} = -\frac{1}{2}$$

$$\cos \alpha_4 = \frac{2}{\sqrt{5}}$$

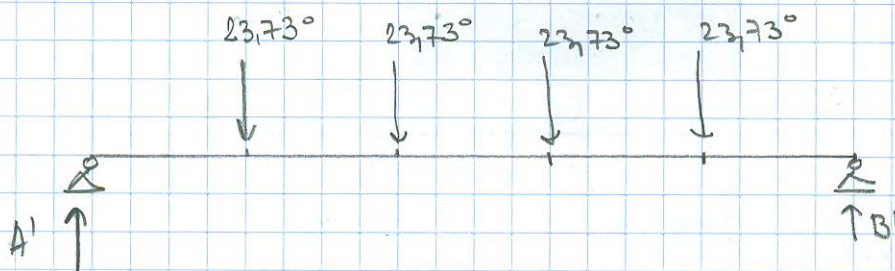
$$S_4 = -53,0693$$

$$V_4 = -23,73^\circ$$

$$\tan \alpha_5 = -1$$

$$\cos \alpha_5 = \frac{1}{\sqrt{2}}$$

$$S_5 = -67,128$$



$$\sum M_B = 0 \quad A' \cdot 20 - 23,73^\circ (16 + 12 + 8 + 4) = 0$$

$$A' = 47,46^\circ$$

$$\sum V = 0 \quad A' + B' - 4 \cdot 23,73^\circ = 0$$

$$B' = 47,46^\circ$$

$$A + A' = A_0 \quad B + B' = B_0$$

$$A = A_0 - A' \quad B = B_0 - B'$$

$$A = 20,4 - 47,46^\circ = -27,06^\circ$$

$$B = 91,8 - 47,46^\circ = 44,13^\circ$$