I | $\sum x_i = S_1 \cos\alpha_1 - S_2 \cdot \cos\alpha_2 - Z \cdot \cos\alpha_2 = 0$

II | $\sum y_i = -G - S_1 \sin\alpha_1 + S_2 \sin\alpha_2 + Z \sin\alpha_2 = 0$

I | $Z = \frac{S_1 \cos\alpha_1 - S_2 \cos\alpha_2}{\cos\alpha_2} = 2{,}58\,kN$

II | $G = -S_1 \sin\alpha_1 + S_2 \sin\alpha_2 + Z \sin\alpha_2 = 9{,}811\,kN \Rightarrow m = 1000\,kg$

$\alpha_2 = 23°$

$\alpha_1 = 5°$

$S_1 = S_2 = 26\,kN$

$G = 10\,kN$

$Z = 2{,}5\,kN$