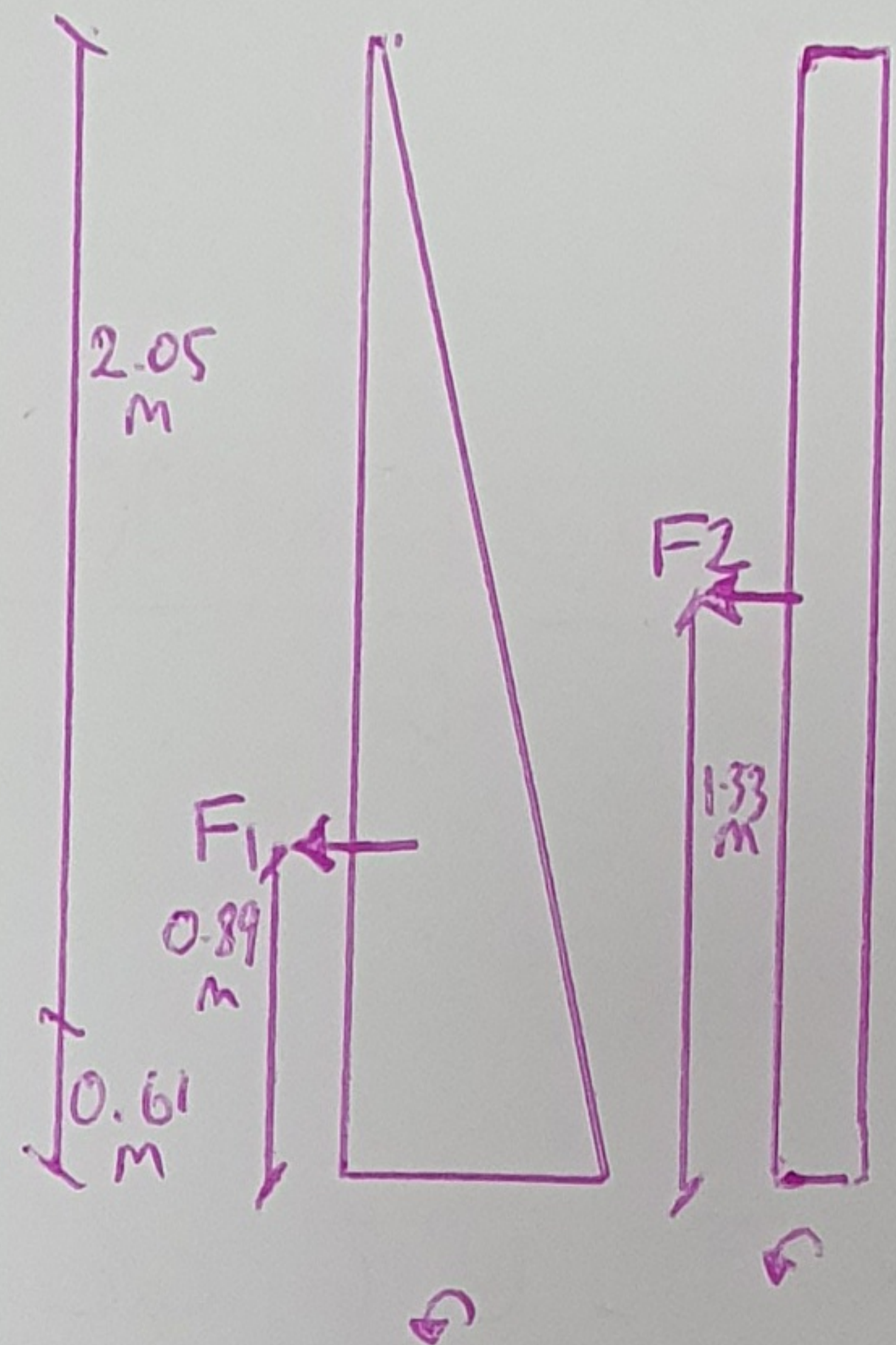
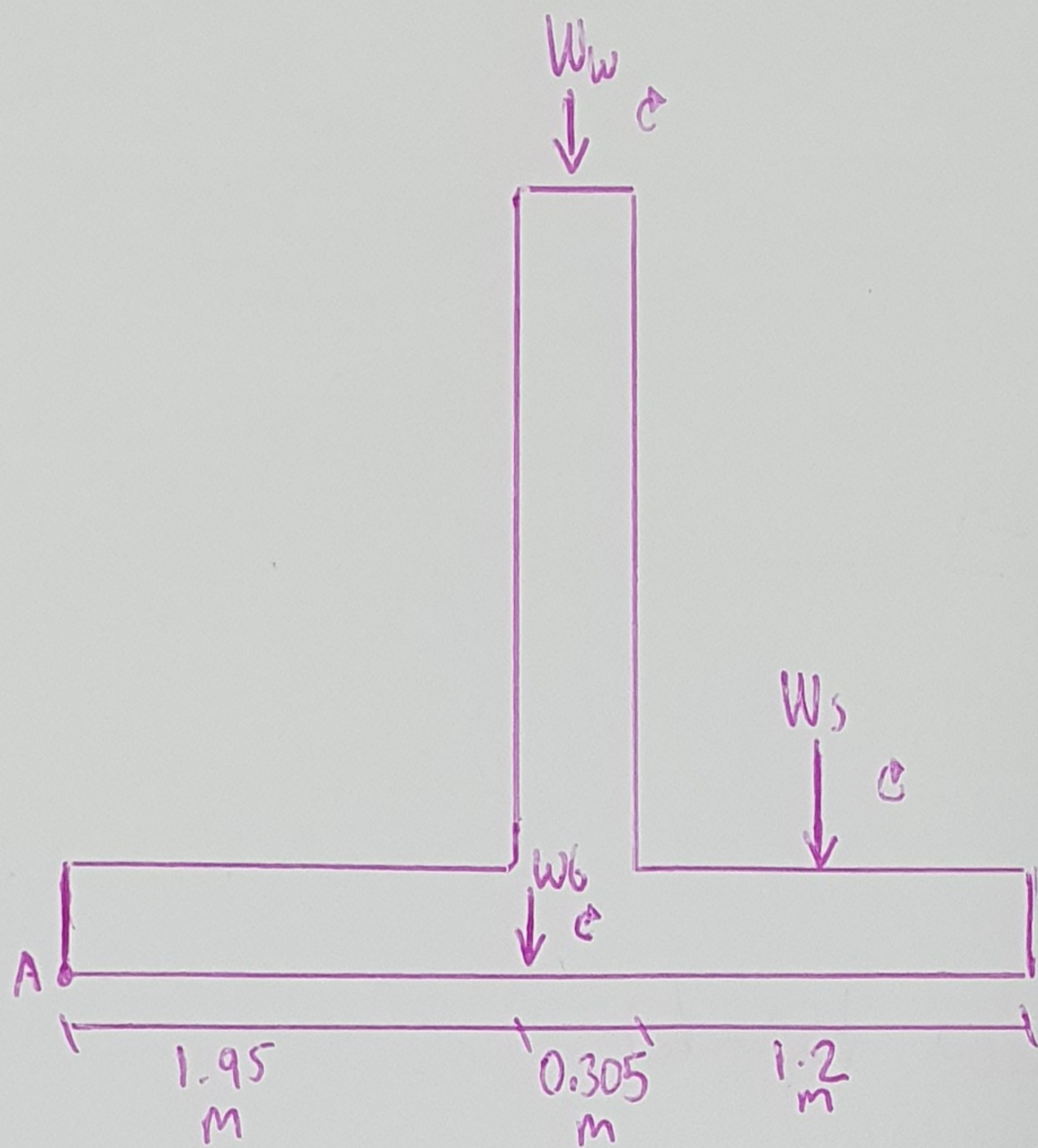




Moments about A

$$F_1 = 32.4 \text{ kN}$$

$$F_2 = 6.41 \text{ kN}$$

$$W_s = 46.74 \text{ kN}$$

$$W_w = 15 \text{ kN}$$

$$W_b = 50.6 \text{ kN}$$

Distances to A

$$0.89 \text{ m}$$

$$1.33 \text{ m}$$

$$2.855 \text{ m}$$

$$2.103 \text{ m}$$

$$1.728 \text{ m}$$

$$\begin{aligned} \sum M_A &= 32.4 \times 0.89 + 6.41 \times 1.33 - 46.74 \times 2.855 - 50.6 \times 1.728 - 15 \times 2.103 \\ &= -215 \text{ kNm} \end{aligned}$$

total vertical load down

$$= 112.34 \text{ kN}$$

$$\text{distance of resultant from point A} = \frac{215}{112.34}$$

$$= 1.914 \text{ m from A}$$

