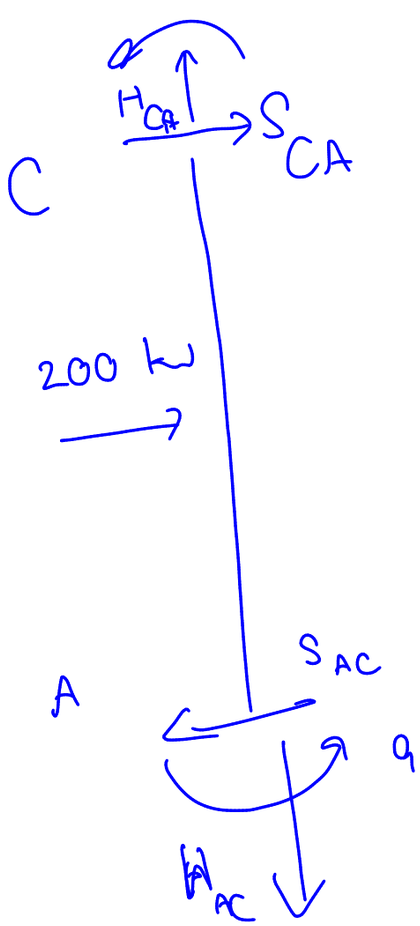
$$M_{AC} = 0.5\,EI\theta_C + 100$$

$$= 0.5 \times (-15.9) + 100 = 92\ kN.m$$

$$M_{CA} = EI\theta_C - 100 = -15.9 - 100 = -115.9\ kN.m$$



$$\Sigma M_A = 0 \;;\; M_{CA} + M_{AC} - 200 \times 2 - S_{AC} \times 4 = 0$$

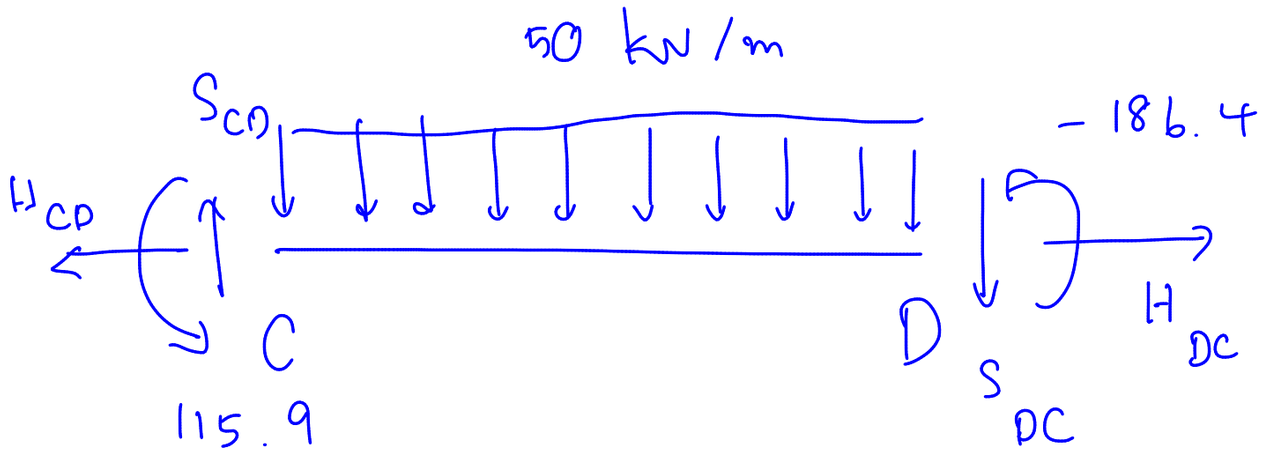
$$S_{CA} = \frac{M_{CA} + M_{AC}}{4} - \frac{200 \times 2}{4}$$

$$= \frac{-115.9 + 92}{4} - \frac{200 \times 2}{4} = -105.98\ kN$$

$$\rightarrow \Sigma F_x = 0 \;;\; S_{CA} - S_{AC} + 200 = 0$$

$$S_{AC} = S_{CA} + 200$$

$$= -105.98 + 200 = 94.03\ kN$$



$$\Sigma M_C = 0 \qquad M_{CD} + M_{DC} - \frac{50 \times 6 \times 3}{} - S_{DC} \times 6 = 0 \Rightarrow$$

$$S_{DC} = \frac{M_{CD} + M_{DC}}{6} - \frac{50 \times 6 \times 3}{6}$$

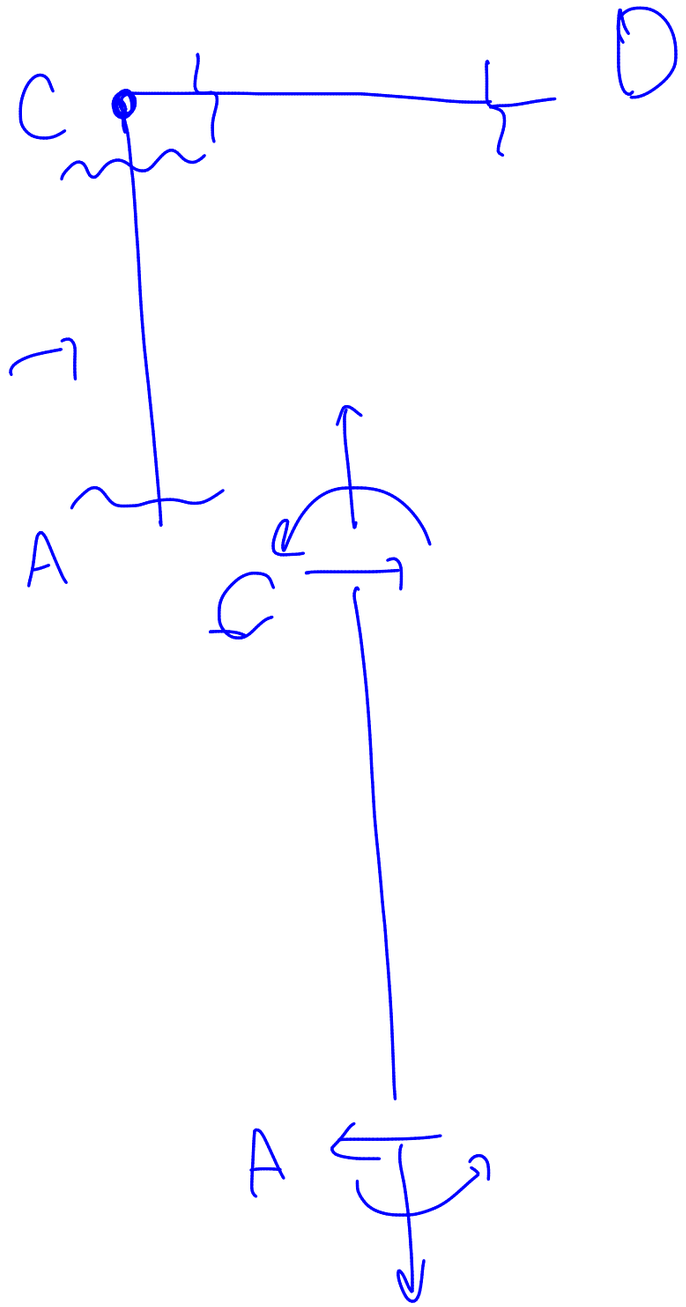
$$S_{DC} = \frac{115.9 - 186.4}{6} - \frac{50 \times 6 \times 3}{6}$$

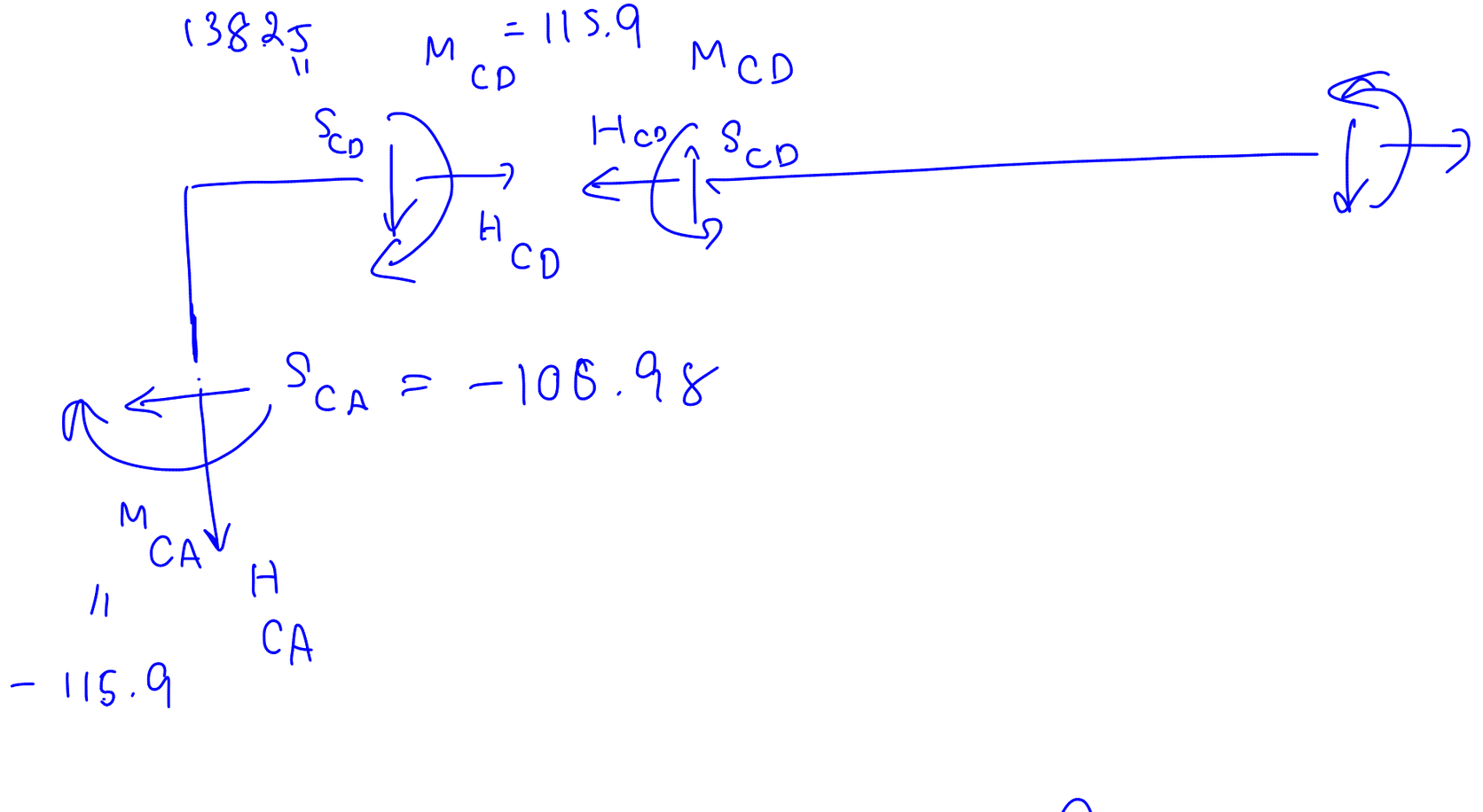
$$= -161.75$$

$$\Sigma F_y = 0 \qquad S_{CD} - S_{DC} - 50 \times 6 = 0$$

$$S_{CD} = S_{DC} + 50 \times 6 = -161.75 + 300$$

$$= 138.25 \text{ kN}$$





$$\sum F_y = 0 \quad -S_{CD} - H_{CA} = 0$$

$$\therefore H_{CA} = -S_{CD}$$

$$= -138.25 \text{ kN}$$

$$\sum F_x = H_{CD} - S_{CA} = 0$$

$$H_{CD} = S_{CA} = -105.98 \text{ kN}$$