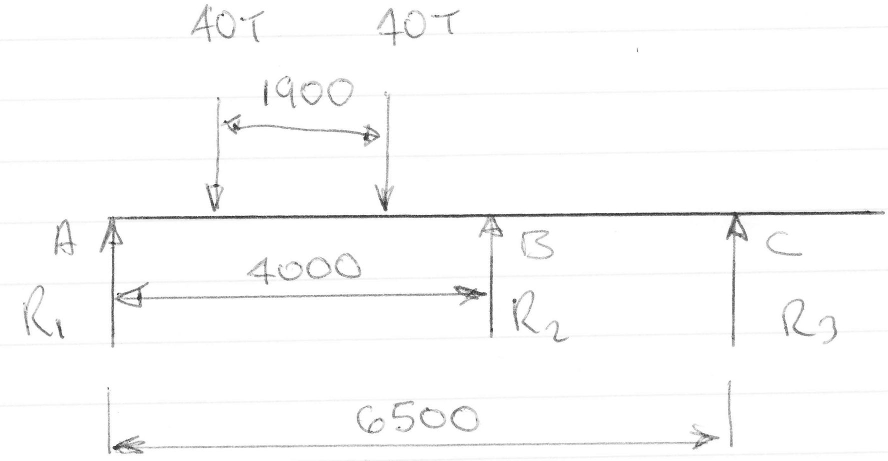
1.



USING THREE MOMENT EQUATION

$$M_A L_1 + 2M_B(L_1+L_2) + M_C L_2 = -\frac{6A_1\bar{a}_1}{L_1} - \frac{6A_2\bar{b}_2}{L_2}$$

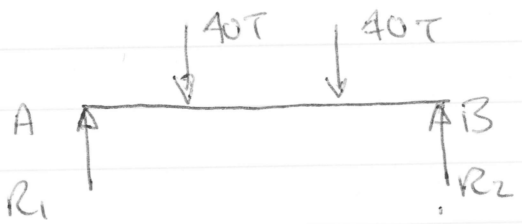
NOW M_A & M_C MUST = 0, ALSO THERE ARE NO EXTERNAL LOADS ON L_2

$$\therefore 2M_B(L_1+L_2) = -\frac{6A\bar{a}_1}{L}$$

NOT REQ

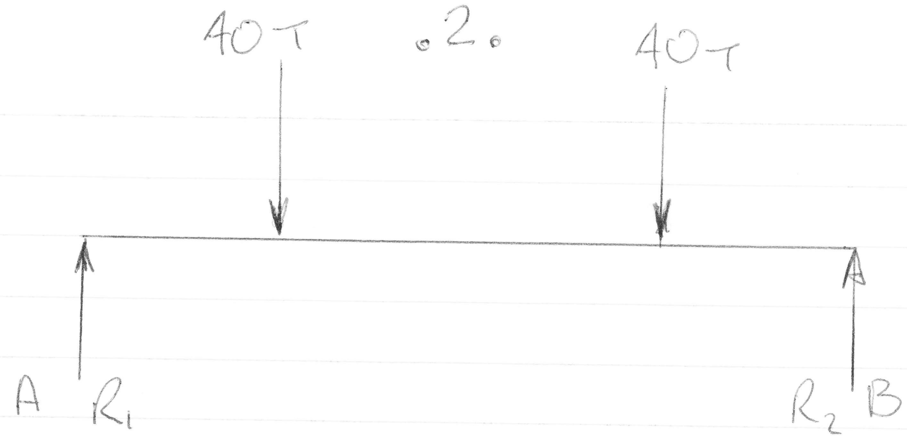
~~ASSUMING A $I = 168000\,mm^4$, $E = 200{,}000\,N/mm^2$~~

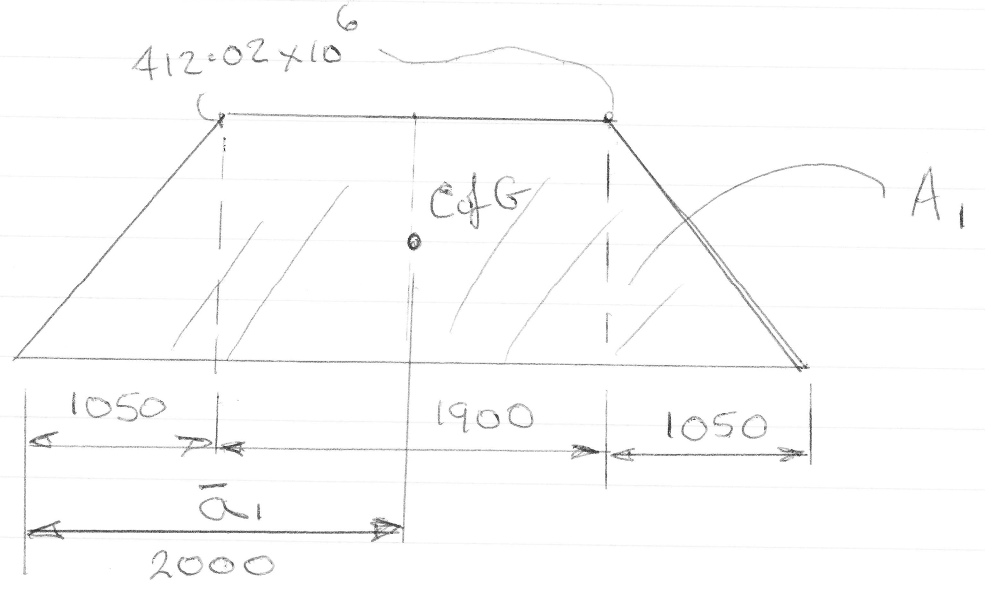
CONSIDER SECTION A-B AS SIMPLY SUPPORTED



DRAW THE B.M. DIAGRAM

.2.





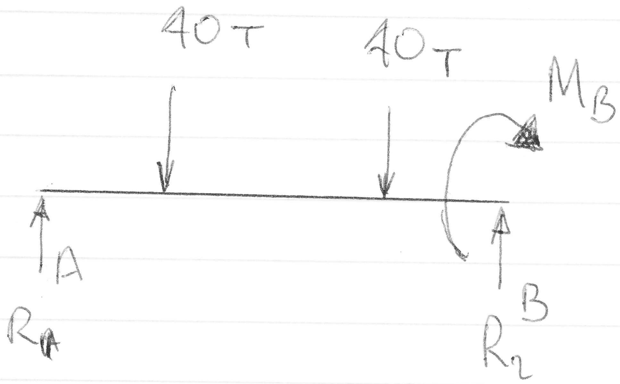
$$2M_B(L_1+L_2) = \frac{-6A_1\bar{a}_1}{L_1}$$

$$2M_B(4000+2500) = \frac{-6\times(1050\times 412{\cdot}02\times10^6 + 1900\times 412{\cdot}02\times10^6)}{4000}$$

(2000 written above 1050 in the numerator)

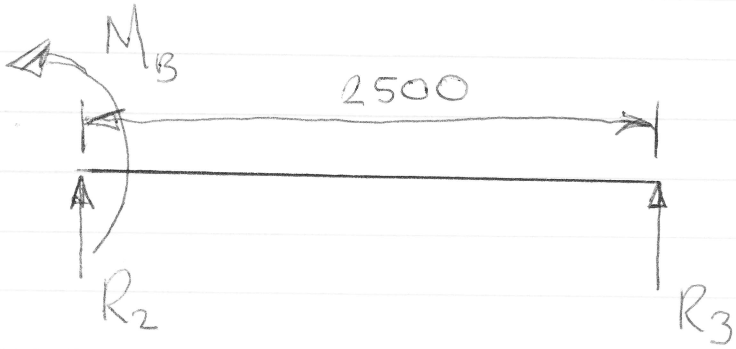
$$\underline{\underline{M_B = -280490538{\cdot}5\ N_{mm}}}$$

.3.



$\therefore \quad R_1 \times L_1 - 412 \cdot 02 \times 10^6 \times 1050 - 412 \cdot 02 \times 10^6 \times 2950 = -280490538 \cdot 5 \, Nmm$

$\underline{\underline{R_1 = 322277 \cdot 353 N}}$



$M_B - 2500 R_3 = 0$

$$R_3 = \frac{280490538 \cdot 5}{-2500}$$

$\underline{\underline{R_3 = -112196.2\text{[illegible]}135 \, N}}$

$\therefore \quad R_1 + R_2 + R_3 = 80 \times 1000 \times 9 \cdot 81$

4.

$322277.353 + R_2 + (-112196.2135N) = 80000 \times 9.81$

$R_2 = 574718.8624N$