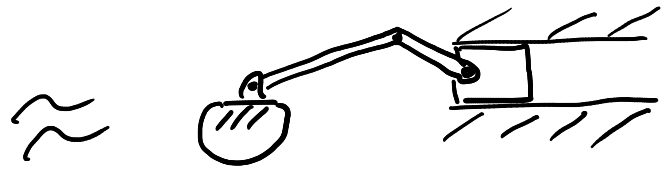
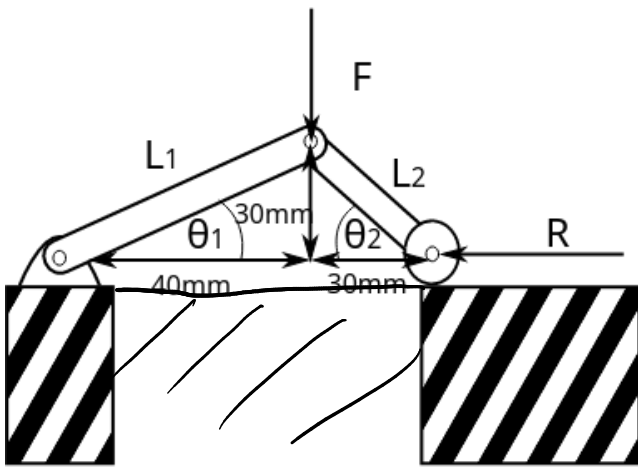
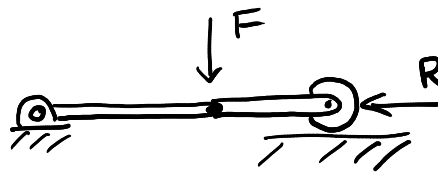


(a) when does $R=0$?

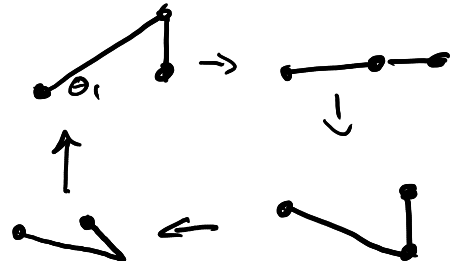


case 1 $\rightarrow \theta_1 = 0^\circ$

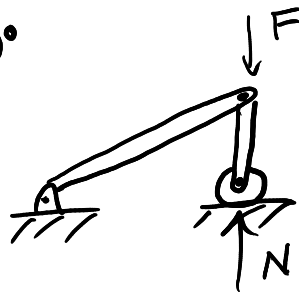


$R = \pm \infty N$

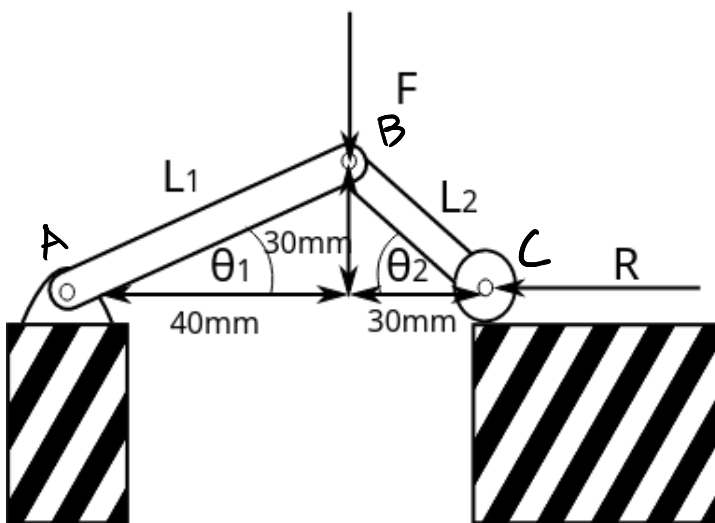
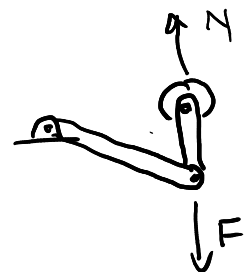
case 2 $\rightarrow \theta_1 = 90^\circ$



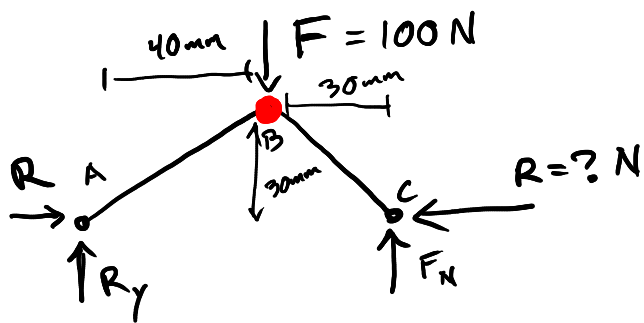
case 3 $\rightarrow \theta_2 = 90^\circ$



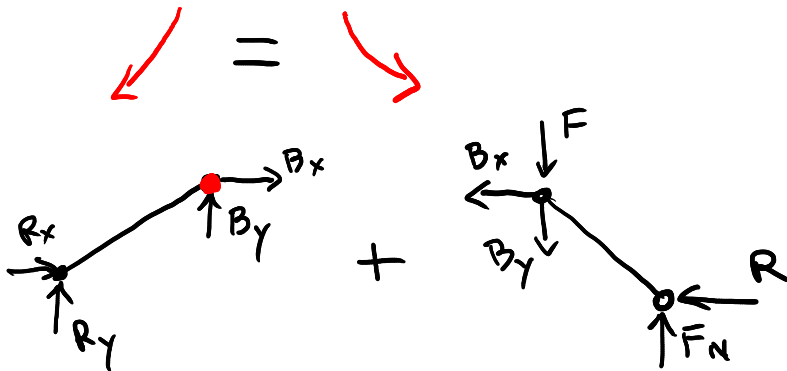
or -90°



in this config, what is R ?



$$\begin{cases} \sum F_x = 0 = R_x - R \rightarrow R_x = R \\ \sum F_y = 0 = R_y + F_N - F \\ \sum M_A = -40 \text{ mm} \cdot 100 \text{ N} + 70 \text{ mm} \cdot F_N \\ F_N = \frac{4}{7} \cdot 100 \text{ N} \\ R_y = \frac{3}{7} \cdot 100 \text{ N} \end{cases}$$



$$\sum M_B = 30 \text{ mm} \cdot R - 30 \text{ mm} \cdot R + 30 \text{ mm} \cdot F_N - 40 \text{ mm} \cdot R_y$$

