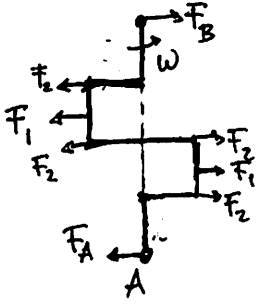


Moq M.3



The centrifugal force can be written as

$$F_1 = m \cdot \omega^2 l$$

$$F_2 = \frac{m}{l} \int_0^l dr \cdot \omega^2 r = \frac{1}{2} m \omega^2 l$$

then the static condition at point A gives

$$\sum \tau_A = 0$$

$$F_2 \cdot l + F_1 \cdot \frac{3l}{2} - F_1 \frac{l}{2} - F_2 \cdot 3l + F_B \cdot 4l = 0$$

$$m \omega^2 l \left(\frac{1}{2} + \frac{3}{2} - \frac{1}{2} - 3 \right) + 4F_B = 0$$

$$F_B = \frac{3}{4} m \omega^2 l$$

$$\text{similarly } F_A = \frac{3}{4} m \omega^2 l$$