WEIGHTLESS STICK

\[ \Theta = \frac{ML}{3} \]

\[ \Theta = \frac{ML}{6} \]

\[ M = \frac{12}{16} \times 3 \]

SIMPLE BEAM

\[ \Theta_2 = \frac{Wl^2}{24} = \frac{24(16)^2}{24} = 256 \]

EQUATE \( \Theta \)'

\[ \Theta_1 + \Theta_2 = 0 = \frac{ML}{3} + 256 = M \times 533 + 256 \]

\[ M = 48 \text{ kN} \]