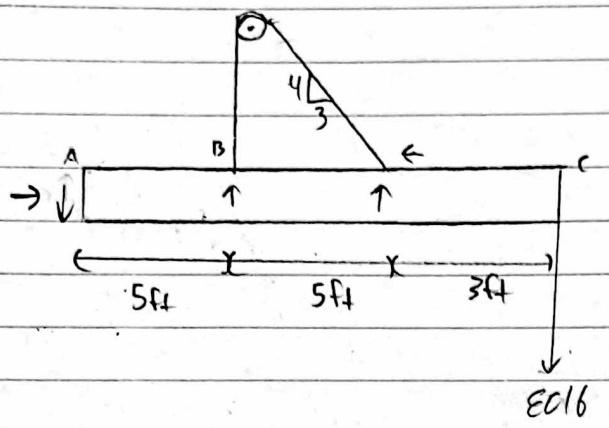
Solutions: 21-5-5.4-MK-02



$\circlearrowleft + \Sigma M_A = 0: \quad T(5) + T\left(\frac{4}{5}\right)(10\text{ ft}) - (80\text{ kg})(13\text{ ft})$

$0 = T(5+8) - (80\text{ kg})(13\text{ ft})$

$T = \frac{(80\text{ kg})(13\text{ ft})}{13\text{ ft}} \Rightarrow \boxed{T = 80\text{ kg}}$

$\Sigma F_x = A_x - \left(\frac{3}{5}\right)(80\text{ kg}) \Rightarrow \boxed{A_x = 48\text{ kg}}$

$\Sigma F_y = 0 = -A_y + 80\text{ kg} + \left(\frac{4}{5}\right)(80\text{ kg}) - 80\text{ kg}$

$\boxed{A_y = 64\text{ kg}}$