P#C

Ch 8

$m_w = 20.0\ kg$
$d_w = 1.5\ m$

$d_R = 2.0\ m$

a) $\tau = F \cdot d$

$\tau_w = (20.0\ kg \times 9.8\ m/s^2) \cdot (1.5\ m)$

$\tau_w = 294\ Nm$

b) $\tau_R = F \cdot d = 294\ Nm$ (equal to τ_w)

$(294\ Nm) = F \cdot (2.0\ m)$

$F = 147\ N$