A pulley of mass $m_p$, radius $R$, and moment of inertia about the center of mass $I_{cm}$, is suspended from a ceiling. An inextensible string of negligible mass is wrapped around the pulley and attached on one end to an object of mass $m_1$ and on the other end to an object of mass with $m_1 > m_2$. At time $t = 0$, the objects are released from rest. How long does it take the objects to move a distance $d$? If $I_{cm} = \frac{1}{2} m_p R^2$, what does your answer reduce to?