

A slender rod of mass m_r has a disk of mass m_0 fastened to it at its end. It is pinned at O - a "frictionless" pin. The circular frequency in rad/s of the system for small oscillations is what?

$I_R = \frac{m_r l^2}{12}$, $I_D = 0.00$ Show Work

a. $[g(m_r/2 + m_0)/l(m_r/3 + m_0)]^{1/2}$

b. $[g(m_r/2 + m_0)/l(m_r/3)]^{1/2}$

c. $(6g/l)^{1/2}$

d. $(3g/2l)^{1/2}$

