

**Advanced Chemistry, 2008**  
**Winter Quarter – Week 7 Homework**

For a rigid rotor that has masses  $m_1$  and  $m_2$  connected by a rigid bond of length  $R$  as shown below, show that

$$r_1 = \frac{(m_2)}{(m_1 + m_2)} R \quad \text{and} \quad r_2 = \frac{(m_1)}{(m_1 + m_2)} R$$

