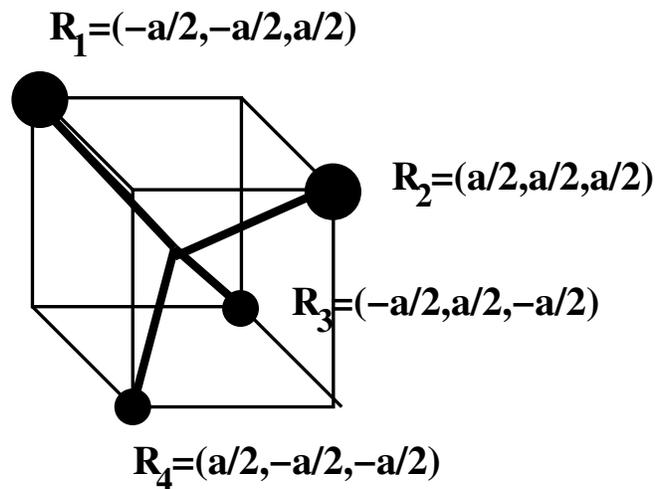


PHY 711 – Problem Set # 16

Continue reading Chapter 5 in Fetter and Walecka.



The above figure shows an object with four particles held together with massless bonds at the coordinates shown. The masses of the particles are $m_1 = m_2 \equiv 2m$ and $m_3 = m_4 \equiv m$.

1. Evaluate the moment of inertia tensor for this object in the given coordinate system.
2. Find the principle moments of inertia and the corresponding principle axes. Sketch the location of the axes.