Performance Task Equations

$p = mv$

$m_1 v_{1i} + m_2 v_{2i} = (m_1 + m_2) v_f$ (Inelastic)

$m_1 v_{1i} + m_2 v_{2i} = m_1 v_{1f} + m_2 v_{2f}$ (Elastic)

$-m_1 v_{1f} = m_2 v_{2f}$ (Explosions)

$m \, \Delta v = F \, \Delta t$ (Impulse)

$\Delta v = v_f - v_i$