

HW6-2 Soln)

Set

$$\frac{1}{2}m_P v_P^2 = \frac{1}{2}m_A v_A^2$$

$$v_P = \sqrt{\frac{m_A v_A^2}{m_P}} = \sqrt{\frac{(1500)(100)^2}{50}} = 547 \text{ kph}$$