21. We examine the horizontal components of the momenta of the package and sled. Let m_s be the mass of the sled and v_s be its initial velocity. Let m_p be the mass of the package and let v be the final velocity of the sled and package together. The horizontal component of the total momentum is conserved, so $m_s v_s = (m_s + m_p)v$ and

$$v = \frac{v_s m_s}{m_s + m_p} = \frac{(9.0\,\text{m/s})(6.0\,\text{kg})}{6.0\,\text{kg} + 12\,\text{kg}} = 3.0\ \text{m/s}\ .$$