7. The solution of this problem involves a direct application of the principle of conservation of momentum. We know the velocities of both objects before the collision, and we know that the objects move off together after the collision. We can calculate the final velocity, because the total momentum before the collision must equal the total momentum after the collision.

$$p_{before} = p_{after}$$

$$m_1 v_1 + m_2 v_2 = (m_1 + m_2) v_{after}$$

$$(120{,}000 \text{ kg})(3 \text{ m / s}) + (120{,}000 \text{ kg})(0) = (120{,}000 \text{ kg} + 120{,}000 \text{ kg}) v_{after}$$

$$360{,}000 \text{ kg m / s} = (240{,}000 \text{ kg}) v_{after}$$

$$v_{after} = 1.5 \text{ m / s}$$