

58

$m'v' = m_1v_1 + m_2v_2$ より、 (運動量保存の法則)

$m_1 = 2kg$, $m_2 = 0.01kg$, $v_1 = 0\text{ m/s}$, $v_2 = 300\text{ m/s}$

$m' = m_1 + m_2 = 2.01kg$

を代入して、

$2.01v'_1 = 2 \cdot 0 + 0.01 \cdot 300$

$\therefore v'_1 = 1.49\text{ m/s}$