

Tram → Auto

①

$$m_T \cdot v_T + m_A \cdot v_A = (m_T + m_A) \cdot v$$

$$\begin{aligned} \therefore m_A &= \dots \\ v_A &= 0 \end{aligned}$$

$$\Rightarrow v = \frac{m_T \cdot v_T}{m_T + m_A}$$

$$= \frac{4.5 \text{ Tonnes} \cdot 2 \text{ m/s}}{(4.5 + 2.5) \text{ Tonnes}} = \underline{\underline{1.286 \text{ m/s}}}$$