

Question

We have:

$$v_2 = v_1 + a \cdot t \Rightarrow a = \frac{v_2 - v_1}{t} = \frac{20 - 24.6}{4.2} = -\frac{2.3}{2.1} \approx -1.1 \left(\frac{m}{s^2} \right).$$

$$F = m \cdot a = -\frac{2.3}{2.1} \cdot 1476 = -1616.6 \text{ N}.$$

Answer: the net force - 1616.6 N.