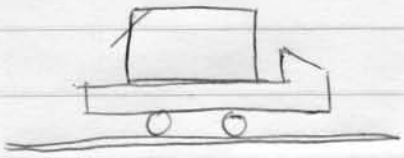
then the lighter toof she moves with v_1'. the lighter toof with v_3

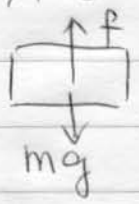
$$\begin{cases} v_1' - v_3 = v_{rel} \\ m_1 v_1' + m_2 v_3 = (m_1 + m_2) v_1 \end{cases}$$

$$v_1' \doteq 0.196281 \text{ m/s}$$

It will weigh more than 10,400 lb.

①





$$\begin{cases} f - mg = ma \\ T = f + Mg \end{cases} \Rightarrow T = Mg + (g+a)m > (M+m)g$$

② Because the part with chicken has an upward acceleration.

So the combined system has an upward acceleration.

Then the force supporting it must be bigger than its gravit

— It weighs more than 10,400 lb then.