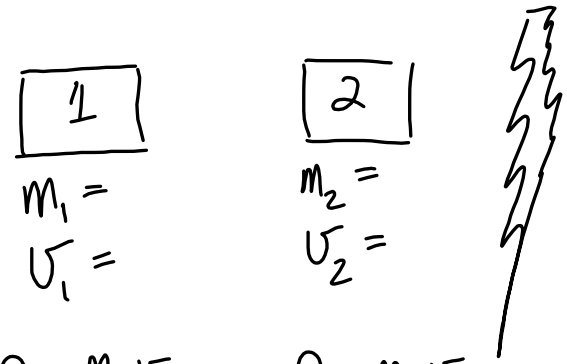
Conservation of Momentum:

- In collisions, the total momentum (of all objects combined) stays the same both before & after the collision
- Analogy: buying a CD: money is transferred, but the total stays the same!

Bregar: $10		Purchase	Bregar: $4 CD
Trenton: $15 CD			Trenton: $21
$25 CD			$25 CD



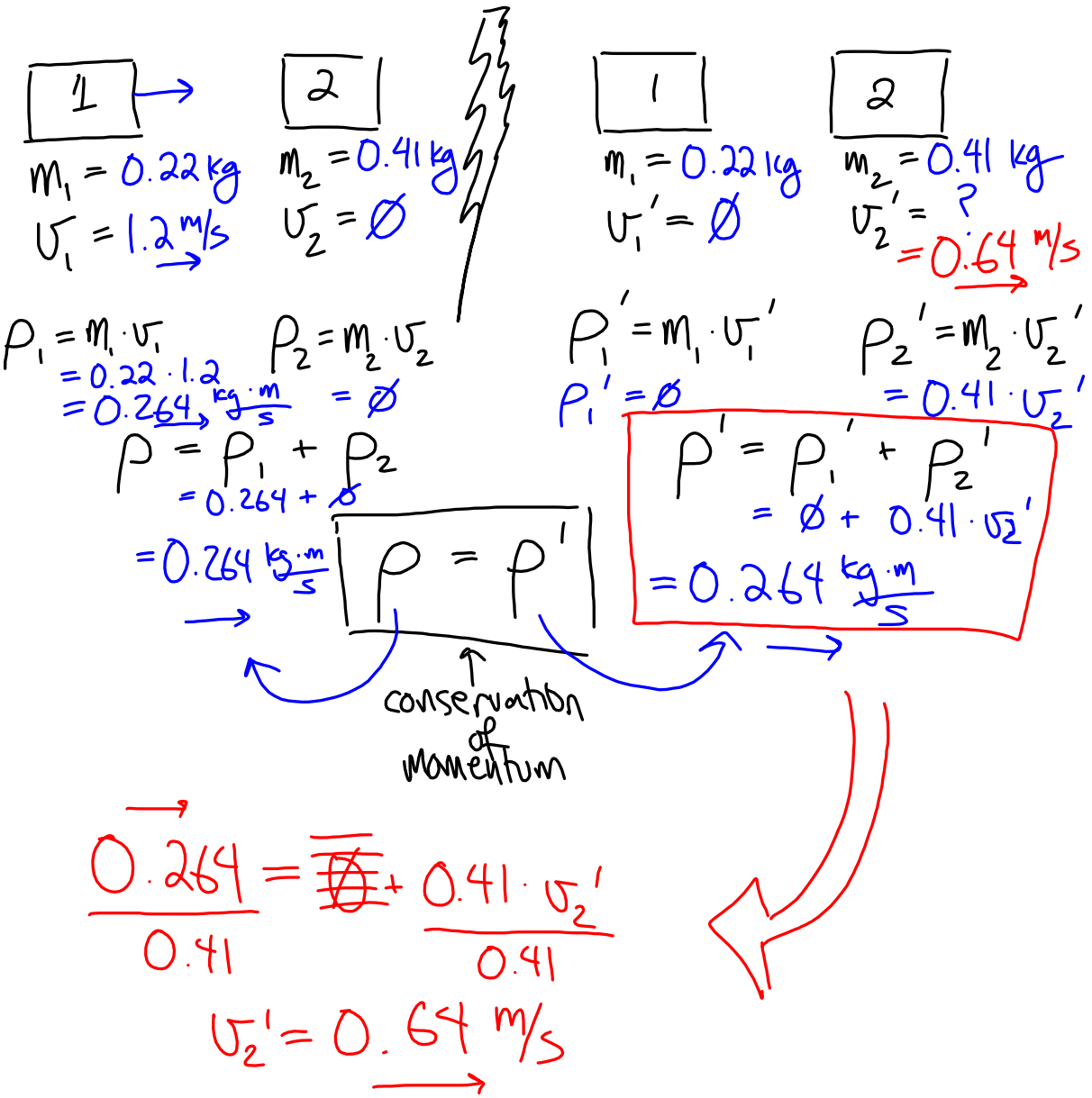
$m_1 =$ $v_1 =$ $m_2 =$ $v_2 =$ $m_1 =$ $v_1' =$ $m_2 =$ $v_2' =$

$p_1 = m_1 \cdot v_1$ $p_2 = m_2 \cdot v_2$ $p_1' = m_1 \cdot v_1'$ $p_2' = m_2 \cdot v_2'$

$p = p_1 + p_2$ $p' = p_1' + p_2'$

$$\boxed{p = p'}$$

↑ conservation of momentum



$$\frac{0.264}{0.41} = \frac{0}{0.41} + \frac{0.41 \cdot v_2'}{0.41}$$

$$v_2' = 0.64\ m/s$$