Bowling Ball

$m_1 = 7.0$ kg
$V_1 = ?$
$V_1' = 1.80$ m/s

Pin

$m_2 = 2.00$ kg
$V_2 = 0$ m/s
$V_2' = 3.00$ m/s

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

OR $m_1 \cdot V_1 + m_2 \cdot V_2 = m_1 \cdot V_1' + m_2 \cdot V_2'$

$(7.0 \text{ kg}) \cdot V_1 + (2.0 \text{ kg})(0 \text{ m/s}) = (7.0 \text{ kg})(1.8 \text{ m/s}) + (2.0 \text{ kg})(3.0 \text{ m/s})$

$$\boxed{V_1 = 2.66 \text{ m/s}}$$