

Inelastic collision
 Velcro Boy

$60\text{kg} \left(\frac{2\text{m}}{\text{s}} \right) + 90\text{kg} \left(\frac{0\text{m}}{\text{s}} \right) = 150\text{kg} (v)$

$\frac{120\text{kg m}}{\text{s}} = \frac{150\text{kg} (v)}{150\text{kg}}$

$\frac{120}{150} \frac{\text{m}}{\text{s}} = v$
 $v = .8 \frac{\text{m}}{\text{s}}$

Bambi Thumper

$20\text{kg} \left(\frac{1.5\text{m}}{\text{s}} \right) + 5\text{kg} (0) = (20\text{kg} + 5\text{kg}) v$

$30\text{kg} \frac{\text{m}}{\text{s}} = (25\text{kg}) v$

$\frac{30\text{kg m}}{25\text{kg}} = v$
 $v = 1.2 \frac{\text{m}}{\text{s}}$