At a collision:
$$m_1 v_{1i} + m_2 v_{2i} = m_1 v_{1f} + m_2 v_{2f}$$

At each step, reduce the velocity by some constant fraction:
$$\frac{1}{2} m_1 v_{1f}^2 + \frac{1}{2} m_2 v_{2f}^2 = k \left(\frac{1}{2} m_1 v_{1i}^2 + \frac{1}{2} m_2 v_{2i}^2 \right)$$
$$\implies m_1 v_{1f}^2 + m_2 v_{2f}^2 = k \left(m_1 v_{1i}^2 + m_2 v_{2i}^2 \right)$$

The final velocities calculated from the collision:
$$v_{1f} = \frac{m_1 - m_2}{m_1 + m_2} v_{1i} + \frac{2 m_2}{m_1 + m_2} v_{2i}$$

$$v_{2f} = \frac{2 m_1}{m_1 + m_2} v_{1i} + \frac{m_2 - m_1}{m_1 + m_2} v_{2i}$$