| | | | | | | Initial momentum | | | Final Momentum | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m_1 (kg) | m_2 (kg) | v_1,i (m/s) | v_2,i (m/s) | v_1,f (m/s) | v_2,f (m/s) | p_1,i (kg m/s) | p_2,i (kg m/s) | p_tot,i (kg m/s) | p_1,f (kg m/s) | p_2,f (kg m/s) | p_tot,f (kg m/s) | p_tot,f/p_tot,i |
| 0.25 | 0.25 | 0.69 | 0 | 0.31 | 0.31 | 0.1725 | 0 | 0.1725 | 0.0775 | 0.0775 | 0.155 | 0.8985507246 |
| 0.5 | 0.25 | 0.53 | 0 | 0.33 | 0.33 | 0.265 | 0 | 0.265 | 0.165 | 0.0825 | 0.2475 | 0.9339622642 |
| 0.25 | 0.5 | 0.6 | 0 | 0.18 | 0.18 | 0.15 | 0 | 0.15 | 0.045 | 0.09 | 0.135 | 0.9 |

| | | | | | | Initial Kinetic Energy | | | Final Kinetic Energy | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m_1 (kg) | m_2 (kg) | v_1,i (m/s) | v_2,i (m/s) | v_1,f (m/s) | v_2,f (m/s) | K_1,i (J) | K_2,i (J) | K_tot,i (J) | K_1,f (J) | K_2,f (J) | K_tot,f (J) | K_tot,f/K_tot,i |
| 0.25 | 0.25 | 0.69 | 0 | 0.31 | 0.31 | 0.0595125 | 0 | 0.0595125 | 0.0120125 | 0.0120125 | 0.024025 | 0.4036967024 |
| 0.5 | 0.25 | 0.53 | 0 | 0.33 | 0.33 | 0.070225 | 0 | 0.070225 | 0.027225 | 0.0136125 | 0.0408375 | 0.5815236739 |
| 0.25 | 0.5 | 0.6 | 0 | 0.18 | 0.18 | 0.045 | 0 | 0.045 | 0.00405 | 0.0081 | 0.01215 | 0.27 |

Comment: For kinetic energy, use the same velocity data as in the momentum case