

PRACTICE G

Elastic Collisions

4. A 25.0 kg bumper car moving to the right at 5.00 m/s overtakes and collides elastically with a 35.0 kg bumper car moving to the right. After the collision, the 25.0 kg bumper car slows to 1.50 m/s to the right, and the 35.0 kg car moves at 4.50 m/s to the right.
- Find the velocity of the 35 kg bumper car before the collision.
 - Verify your answer by calculating the total kinetic energy before and after the collision.