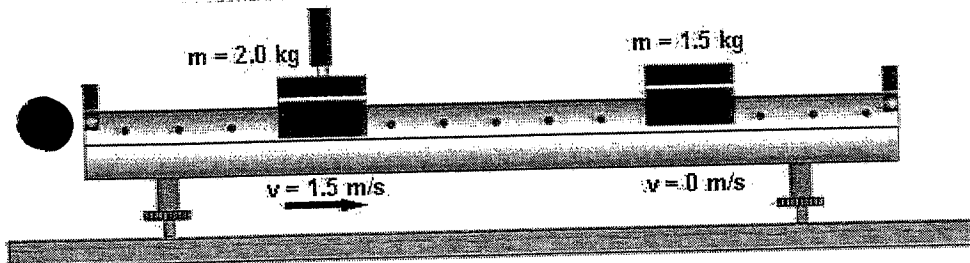


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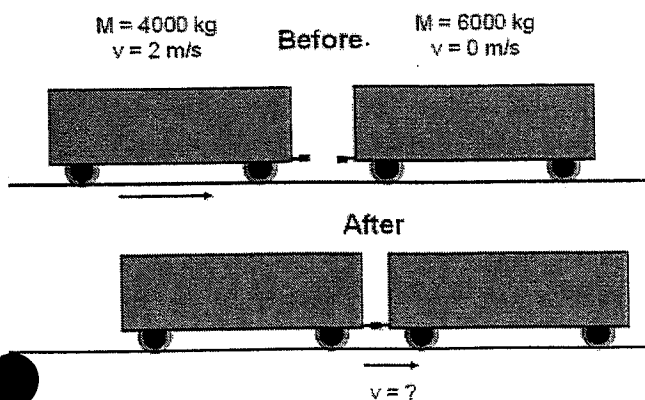
Conservation of Momentum Problems

1. A 2 kg blob of putty moving at 4 m/s slams into a 6 kg blob of putty at rest. What is the speed of the two stuck-together blobs immediately after colliding?

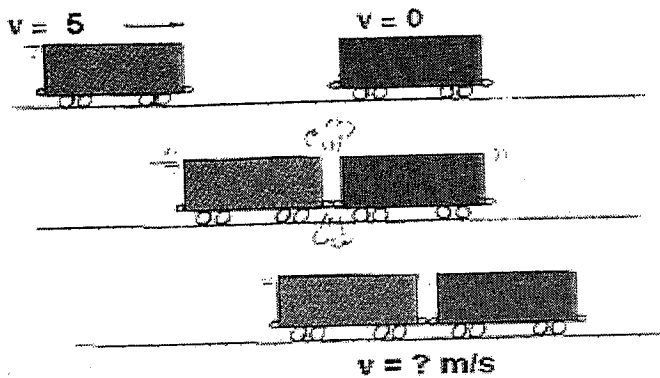
2. A 2 kg mass is moving on a frictionless air track. It collides into a motionless 1.5 kg mass. What is the combined speed of the two masses if they stick together on impact?



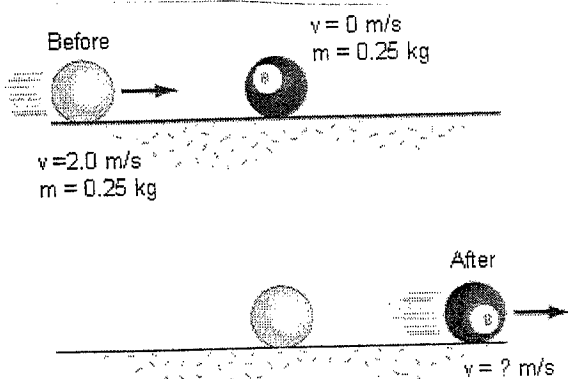
3. A railroad car slams into another railroad car and couples together. What is the combined speed of the railroad cars after the collision?



4. A 6,000 kg railroad car moving at 5 m/s collides into a stationary car with a mass of 4,000 kg. If they couple together after the collision, what will be their combined velocity immediately after impact?



5. What is the velocity of the "8" ball after the elastic collision below?



6. When these two freight cars of different mass collide and couple, what will be their resultant velocity?

