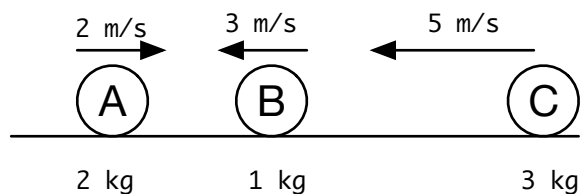


Cycle 25 Momentum

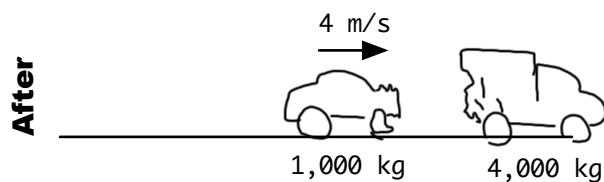
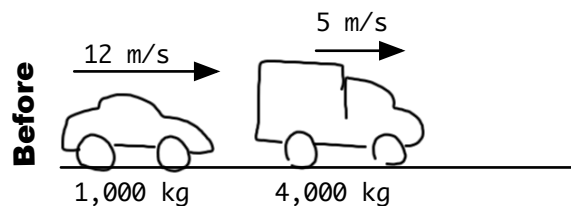
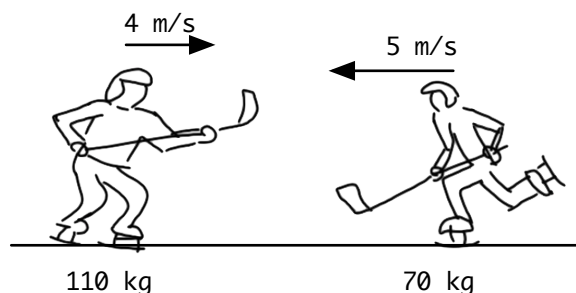
2. Total Momentum

FOR ALL PROBLEMS, ASSUME THERE ARE NO OUTSIDE FORCES

1. a) Find the total momentum of the system.
b) If B were to collide with A, and then rebound and collide with C, what would the total momentum be?



2. a) Find the total momentum.
b) If they were to collide and hold on to each other, what would their combined momentum be?
c) What would their velocity be?



3. a) Find the total momentum before the collision.
b) What should the total momentum after the collision be?
c) Calculate the momentum of the car after the collision and deduce what the truck's momentum must be.
d) What is the truck's velocity afterward?