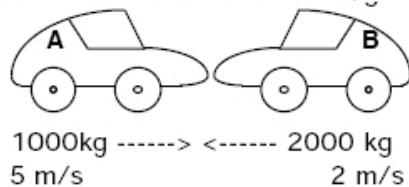


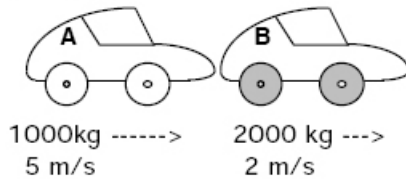
Momentum

1. What is the difference between mass and weight?
 2. Why does the earth spin?
 3. What is inertia?
 4. What is momentum?
 5. State the law of conservation of momentum.
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- Prob 1. Two cars collide and then stick together in an accident. Car A has a mass of 1000 kg car B has a mass of 2000 kg. What is the speed of the cars after the collision?



- Prob 2. Two cars bump going the same direction and stick together. Car A has a mass of 1000 kg car B has a mass of 2000 kg. What is the speed of the cars after the collision?



- Prob 3. Hobbes, the stuffed tiger, has a mass of 52.8 kg. Calvin, the little boy, has a mass of 27.4 kg. In a game of football, Hobbes runs at Calvin at 6.88 m/s. Calvin is running at Hobbes.
- (a) If the two collide, stick together, and are then at rest, what was Calvin's initial velocity?
 - (b) What impulse is exerted on Hobbes by Calvin?
 - (c) What impulse is exerted on Calvin by Hobbes?
 - (d) If the collision occurred in 0.05 seconds, Then what force was exerted on Hobbes?

