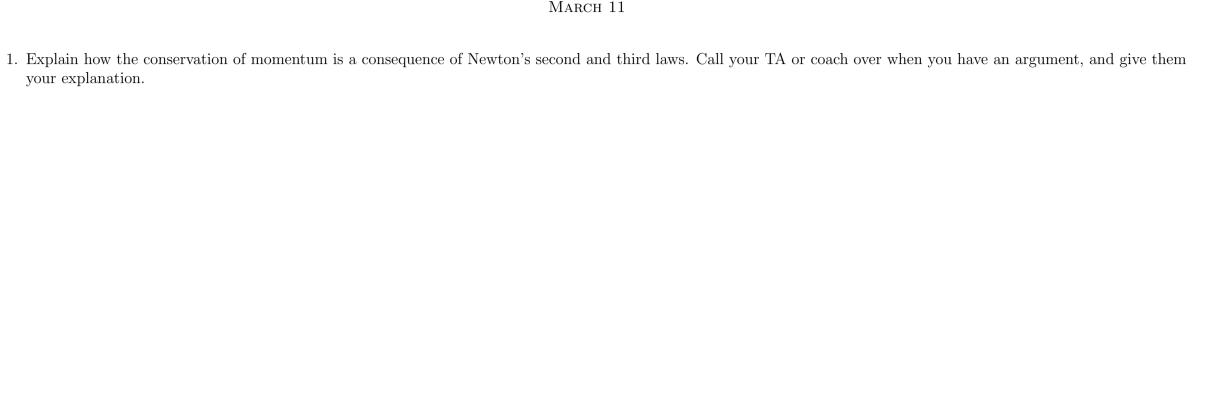
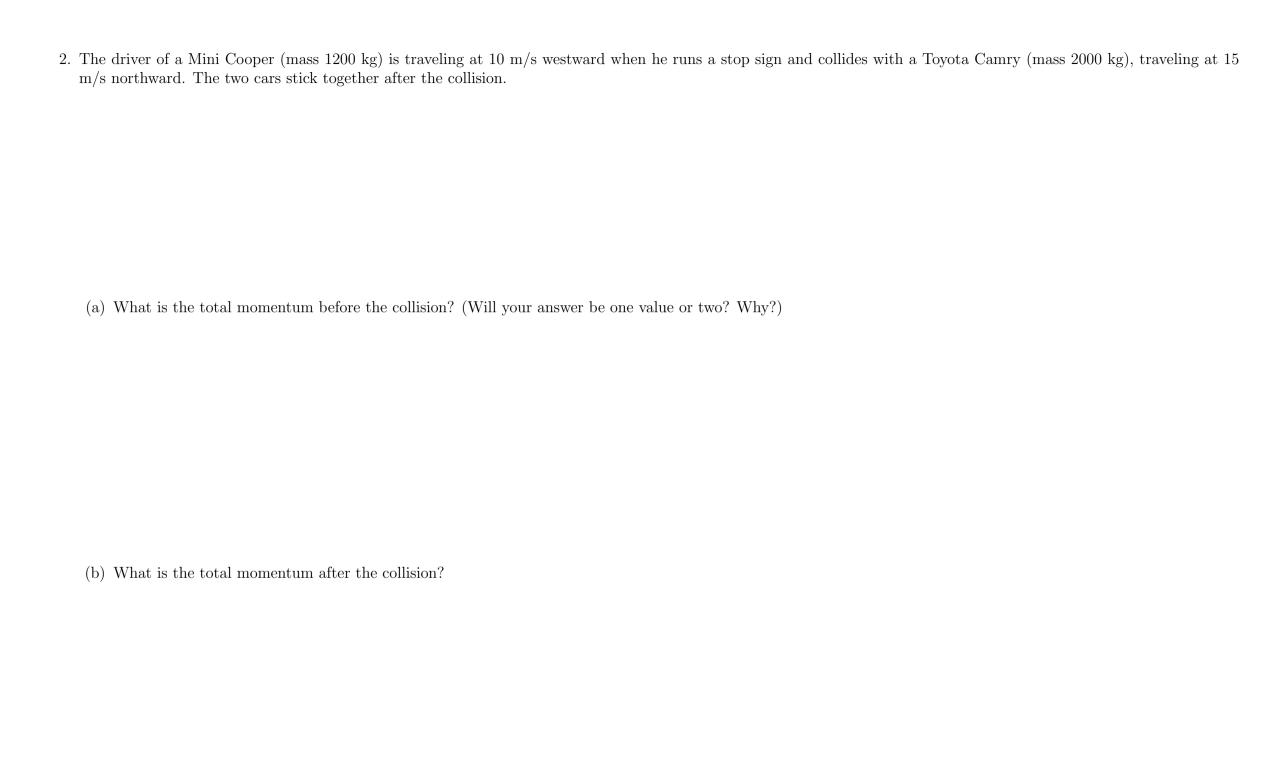
RECITATION QUESTIONS MARCH 11





(c)	What are the speed and direction of the cars after the collision?
(d)	If the coefficient of kinetic friction between the cars' tires and the pavement is 0.6, how far do they skid before coming to rest?

3.	A 5 kg box is sitting on a table; the coefficient of kinetic friction between the box and the table is 0.5. Two people throw things at it: a lump of clay and a rubber be
	Both objects have a mass of 500 g and strike the box at a speed of 4 m/s. The lump of clay collides inelastically (sticking to the box), while the ball bounces back at
	speed of 2 m/s .

(a) Without doing any mathematics, which object will knock the box further? How do you know? Hint: In the collision, the impulse delivered to the box is equal and opposite to the impulse delivered to the object thrown at it.

(b) Calculate how far each object knocks the box.