Boomerang is a classic bumper car ride. Riders can choose between three different types of cars: the Ford, Opal, or Mercedes Benz. Each car is able to move forward and in reverse, depending on how far you turn the steering wheel.

a.) What happens in a collision to each car when:
   - One bumper car is not moving?
   - A rear-end collision takes place?
   - A head-on collision takes place?
   - Bumper car hits a stationary object, i.e. the wall?
   - Cars sideswipe each other?

b.) On the bumper cars do you experience elastic/inelastic collisions? How is this different from the collision experienced by the eggs in the egg drop?

c.) If you want to minimize the impact force you feel when running into a friend how should you collide with them Head-on/Rear-end? Why?