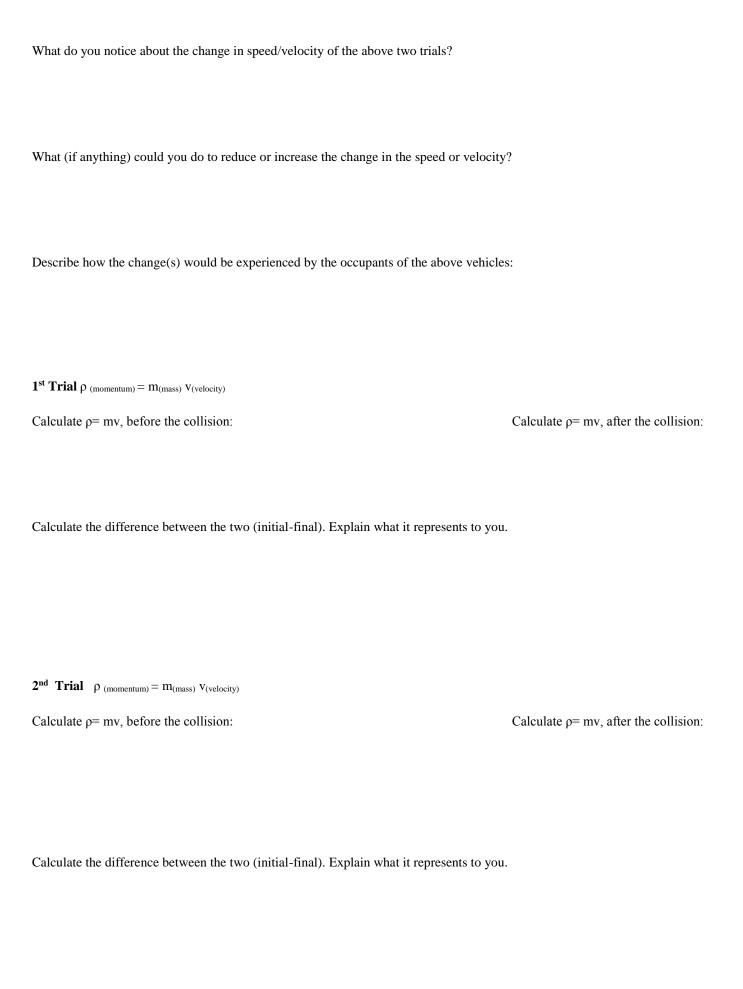
Exploring Momentum & Impulse using video games Part 1 (momentum)

Weight _____ convert to kg _____ 1st Trial Vehicle type: Initial Speed/velocity _____ convert to m/s _____ Final Speed/velocity ____ convert to m/s _____ Time difference:_____ (the change in time to go from initial to final as seen on game) Object interacting with above vehicle (this one must be stationary): What made the vehicle's speed change? How did the above occurrence cause the speed to change? 2nd Trial Vehicle type: Weight _____ convert to kg _____ Initial Speed/velocity _____ convert to m/s _____ Final Speed/velocity _____ convert to m/s _____ Time difference: _____ (the change in time to go from initial to final as seen on game Object interacting with above vehicle (this one must be moving-replicate above information): What made the vehicle's speed change?

How did the above occurrence cause the speed to change?



Part2 (impulse)	
$\mathbf{F} = \mathbf{m}\Delta\mathbf{v}$	
t	

1 st Trial
Using the change in time (Δt) from the game and the difference in momentum solve for the force acting on the car.
2 nd Trial
Using the change in time (Δt) from the game and the difference in momentum solve for the force acting on the car.
What does the above force represent on each car?
What would happen if the force increased or decreased?