Name _____     Class _____

<Show all work on calculations.  Include proper units.  Explanations require complete sentences.>

1)     Calculate the kinetic energy of each vehicle.

     Corvette: _____ J          Honda _____ J          Pickup Truck_____ J

2)     Express the relative kinetic energy of each vehicle as a ratio; (i.e.  Corvette : Honda : Pickup)

3)     If the force of friction between the tires and the road is the same for each vehicle, which vehicle will stop in the shortest distance?

_____

     Explain:

4)     If the kinetic coefficient of friction between the tires and the road is the same for each vehicle, which vehicle will stop in the shortest distance?

_____

     Explain:

5)     How much braking force would be required to stop the pickup truck in 12.0 m?

_____ N