ICP: Speed Lab

Name:_____   Period: _____

Part 1: By the end of this lab, you will . . .

   develop the procedure to measure the speed of vehicles traveling on the Ray Becker Parkway.
   calculate the speed of vehicles in meters per second.
   convert the speed of the vehicles MPH.
   determine the percentage of cars exceeding the posted speed limit.

What two pieces of data are needed to calculate speed?   _____ _____

What is the equation used to solve for speed?   _____

How did you determine the distance the vehicle traveled on Ray Becker Parkway?
_____

How will you calculate the time it takes for the car to travel between your group's starting place and ending
place? _____

Obtain the 2 pieces of data for 10 vehicles and record them in the table

Object	Distance (m)	Time (s)	Speed (m/s)	Speed (mi/h) *(Multiply the m/s value by 2.23 to get miles per hour.)*
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

What is the posted speed limit? _____

What percent of the vehicles in your experiment exceeded the posted speed limit? _____

Speed Lab Part 2: Toy Truck

Objectives: To develop the procedure to measure the speed of a remote controlled car traveling on the
football field.
To calculate the speed of the car in appropriate units.
To convert the speed of the car to MPH.
To compare the calculated speed to actual speed as determined by a speed gun.

What two pieces of data are needed to calculate speed? _____ _____

What is the relationship (equation) between these pieces of data? _____

Describe in detail how you will obtain these 2 pieces of data? (Write the units you will measure in on the
football field. You will not be allowed on the football field.)

Obtain the 2 pieces of data for 5 trial runs of the remote controlled car and record them in the table

Truck	Distance (_____)	Time (_____)	Speed (_____)	Speed (mi/h) (Multiply the speed by 2.04 to calculate the toy truck's speed.)
1				
2				
3				
4				
5				

Calculate the average speed of car in miles per hour using your data.

Actual speed of car measured with a radar gun. _____