The following tables include braking distances and total stopping distances for a variety of vehicles traveling at different speeds.

MPH	Braking Distance (rounded to the nearest foot)			
	Small Auto	Mid-size Auto	Large Auto	Large Van or Pickup
10	5	6	6	8
20	20	22	25	33
30	45	50	56	75
50	125	139	156	208
60	180	200	225	300

Place the MPH in list L1 and the braking distances for a one of the vehicles in L2. Plot this data and find a function that fits the data.

MPH	Total Stopping Distance (rounded to the nearest foot)			
	Small Auto	Mid-size Auto	Large Auto	Large Van or Pickup
10	16	17	17	19
20	42	44	47	55
30	78	83	89	108
50	180	194	211	263
60	246	266	291	366

Use the MPH in list L1 and place the total stopping distances for a one of the vehicles in L3. Plot this data and find a function that fits the data.

In L4 compute the difference between L3 and L2. Plot each of these values. These values represent the distance traveled before the brakes are applied. Find a function for that fits this data. Is the function linear, quadratic or something else? Share this with members of your group.

Complete this table using the Science Tools App to convert MPH (miles per hour) to FPS (feet per second) and then compute the distance traveled during 0.75 seconds before braking.

MPH	10	20	30	50	60
FPS					
Distance Traveled in .75 seconds					

Use the functions you have found to compute the braking distance, total stopping distance and distance traveled during 0.75 seconds before braking for 40 MPH and 70 MPH.

Speed of vehicle	Braking Distance	Total Stopping Distance	Reaction Time Distance
40 MPH			
70 MPH			