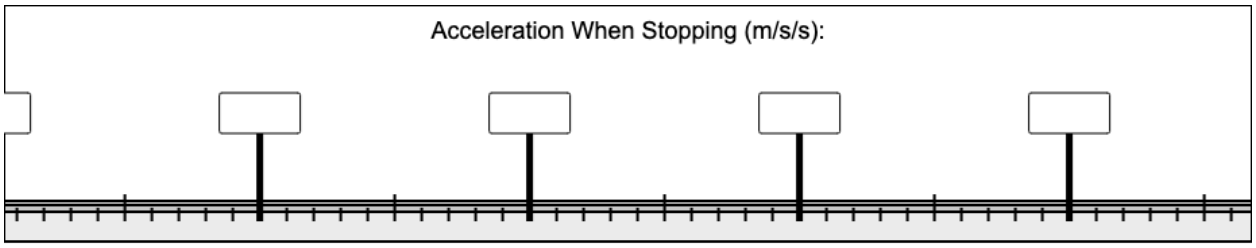
Initial Speed from Stopping Distance

Step 1: The picture below shows the approximate look of your scene when the car has stopped. Fill in a few of the signs and show the position of the car when stopped. Do this carefully enough that anyone looking at it can get the position of the front of the car when it is stopped. Also give the acceleration when stopping for your problem



Step 2: Fill in the three things that you know about the motion of the car from the moment it started braking until the moment it stopped. Then show your calculations to find the initial velocity and the time of braking.

Δx	
v_i	
vf	
a	
t	

Step 3: Enter your answers into your program to make sure you did everything correctly

Step 4 (Optional): Double the starting velocity of the car but keep the acceleration during braking the same as it was in this problem. Fill out the new chart and predict the distance required for braking and the time required to stop. How many times more distance and how many times more seconds are required to stop at this new speed?

Δx	
v_i	
vf	
a	
t	