

Name: _____

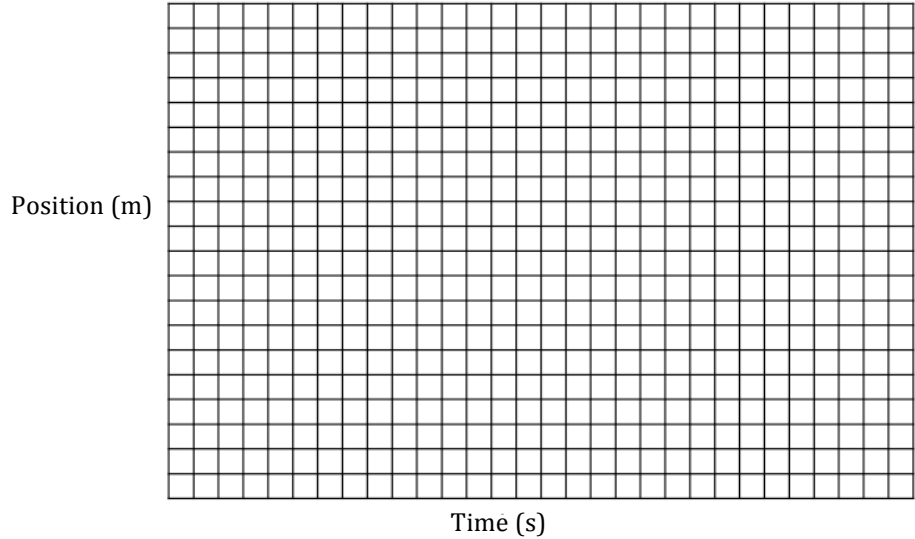
Class Period: _____

Physics: Kinematics in One-Dimension
Graphical Analysis: Sketching HW

1. A car travels at a constant 20 m/s for 10 s. Using this information, fill in the table below showing total displacement of the car away from $x_0 = 0$ m by the end of each second.

Time (s)	Displacement (m)
0	0
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

- A. Using the table and in graph below, create a position vs. time graph for this car.

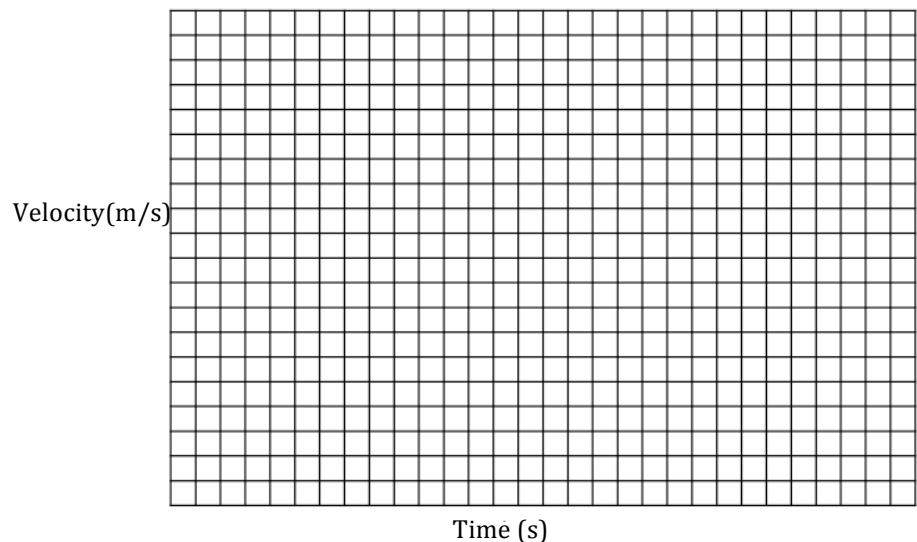


- B. What is the slope of the graph created?

- C. How does this compare to the velocity given?

- D. Complete the table below showing the velocity of the car each second. Then use the table to create the velocity vs. time graph.

Time (s)	Velocity (m/s)
0	0
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	



2. You are watching a big football game on tv. You're really hungry, but the pizza is in the kitchen and you don't want to miss anything. Finally, the team calls a time out – time to make a dash for the pizza. So you do the following things. *You may assume the person begins at a position $x = 0$ m.
- You dash 5 meters in a straight line from the tv to the kitchen in 2.5 s.
 - You stand in the kitchen for 3.5 seconds and grab your pizza.
 - You don't want to drop it, so you walk back covering the 5 meters back in 5 seconds.

Please sketch the position vs time and velocity vs. time graphs for the scenario described above.

