Name: _____ Section #: _____ Date: _____
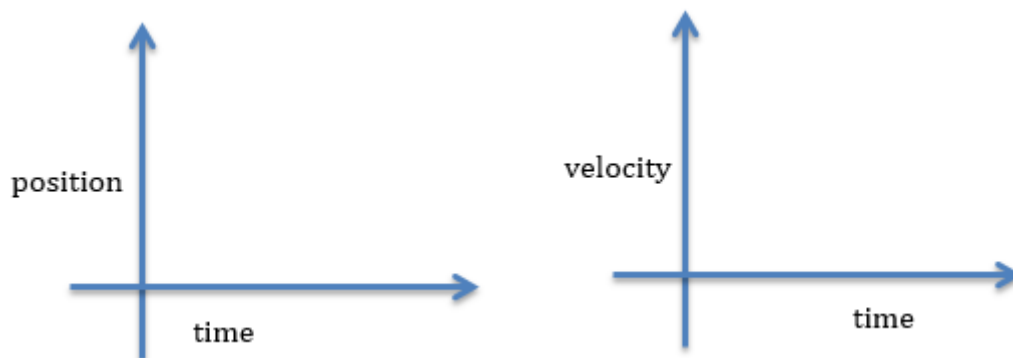
Linear Motion - Spring Semester

Only print this section of the worksheet if you are participating in the Spring Semester lab.

Part 1: Constant Velocity Motion

Prediction

Make a sketch of the graphs you think will be produced by the cart moving toward the motion sensor at constant speed.
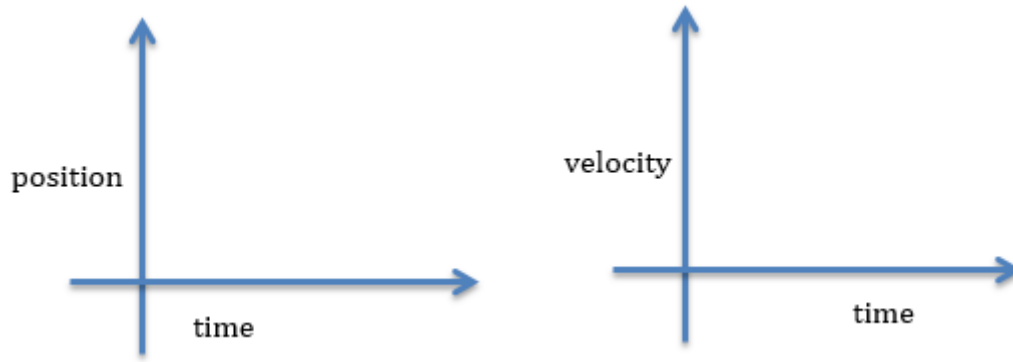

After the Experiment

Discuss the view of the graphs produced by the motion of the cart. Do the graphs look as any of you expected them to look? Write the major points of your discussion below.

Part 2: Uniformly Accelerated Motion

Prediction

Make a sketch of the graphs you think will be produced by the cart moving away from the motion sensor with constant acceleration.

After the Experiment

Discuss the view of the graphs produced by the motion of the cart. Do the graphs look as any of you expected them to look? Write the major points of your discussion below.

Part 3: Free Fall

Record the height from which the provided object is dropped. The error in the height is 2 cm.

In the table below, record the times of the free fall.

Trial	Time (s)
1	
2	
3	
4	
5	
6	
7	
8	

Record the mean value of time and standard deviation found using GA.

Be sure to print all the graphs produced for each part of the lab. The data should be visible on the graphs, too.

Summary

Have you met the objectives of this lab? What are the major types of motion that have been studied in this experiment? What have you learned about them? Use bullet points.

Have your TA sign this worksheet below and then upload it to the Inlab.

TA Signature: _____
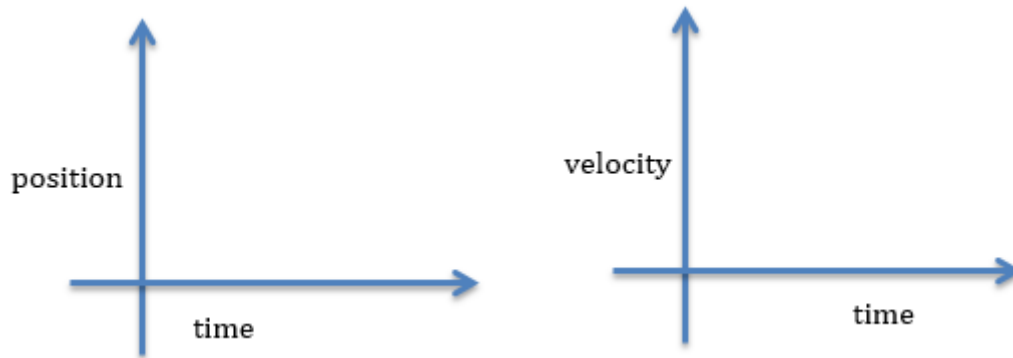
Name: _____   Section #: _____   Date: _____

Linear Motion - Fall Semester

Only print this section of the worksheet if you are participating in the Fall Semester lab.

Part 1: Constant Velocity Motion

Prediction

Make a sketch of the graphs you think will be produced by the cart moving toward the motion sensor at constant speed.
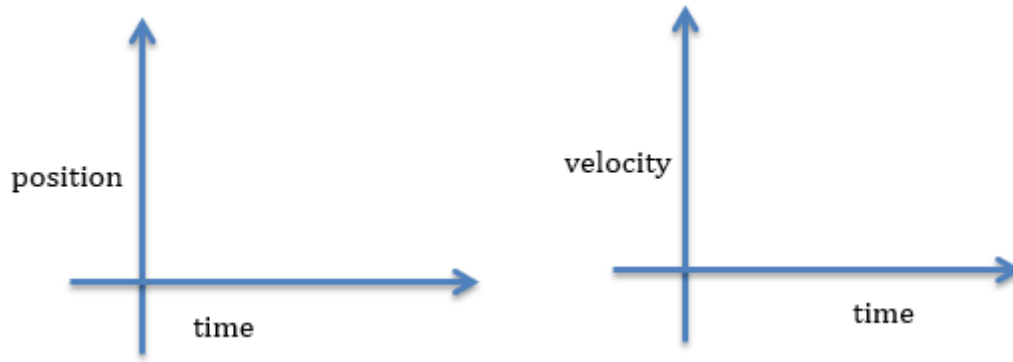

After the Experiment

Discuss the view of the graphs produced by the motion of the cart. Do the graphs look as any of you expected them to look? Write the major points of your discussion below.

Part 2: Uniformly Accelerated Motion

Prediction

Make a sketch of the graphs you think will be produced by the cart moving away from the motion sensor with constant acceleration.

After the Experiment

Discuss the view of the graphs produced by the motion of the cart. Do the graphs look as any of you expected them to look? Write the major points of your discussion below.

Part 3: Free Fall

In the table below, record 5 values of gravitational acceleration.

Trial	Gravitational Acceleration (m/s^2)
1	
2	
3	
4	
5	

Record the mean value of gravitational acceleration and standard deviation found using GA.

Be sure to print all the graphs produced for each part of the lab. The data should be visible on the graphs, too.

Summary

Have you met the objectives of this lab? What are the major types of motion that have been studied in this experiment? What have you learned about them? Use bullet points.

Have your TA sign this worksheet below and then upload it to the Inlab.

TA Signature: _____