Name_____

Data Table

Height of the tabletop from the floor (H): _____

Experiment Number	Trial Number	Release Height	Angle of Inclined Plane	Ball Mark Distance
1	1			
	2			
	3			
	4			
	5			
	6			
			Average	
2	1			
	2			
	3			
	4			
	5			
	6			
			Average	
3	1			
	2			
	3			
	4			
	5			
	6			
			Average	

Post-Lab Questions *(Use a separate sheet of paper to answer the following questions.)*

1. Calculate the average launch distance for each experiment. Enter the results in the data table.

2. Substitute the average launch distance calculated in Question 1 into Equation 5 (see the *Background* section) to determine the launch speed of the ball for each experiment.

3. Use Equation 13 on page 3 to calculate the theoretical launch speed the ball should have for each experiment.

4. In some trials, the ball may bounce slightly on the table before it leaves the tabletop. How would this affect the horizontal speed of the ball as it leaves the tabletop? Would the experimentally determined launch speed of the ball be higher or lower than the theoretical value as a result of this error? Explain.

5. How did the angle of the inclined plane affect the launch speed of the ball? Explain.