Physics 1101 Experiment 10 Homework

NAME_____

1. A block having mass M slides down an inclined plane. The force of friction between the plane and the inclined plane is **f**, the block's weight is M**g**, and the normal force is **N**. Draw a free-body force diagram showing the forces acting on the block.

2. Two calibrated elevation blocks have a combined thickness of 1.86 cm. Find the angle of elevation of the 1.00-meter long track for this situation.

3. For the following position versus time values, calculate the average velocity for each of the four time intervals. What is the physical meaning of a negative average velocity?

Position (m)	1.24	1.57	2.63	2.25	2.00
Time (s)	1.00	1.74	2.33	2.70	3.00

4. You do not need the results of the experiment to do Part 10 on page 65. Carry out the algebra indicated to derive equation (4).