QUESTIONS TO HAND IN – EXPERIMENT 7

NAME_____

LAB INSTRUCTOR_____LAB DAY/TIME_____

1. If the suspended mass m has an acceleration of 5 m/s^2, what must be the condition of the string in order for the acceleration of the horizontal mass M to be the same?

2. After the suspended mass m, hits the floor, ideally, what do you expect the motion of the horizontal mass M, to be like? Assume that it continues its motion with negligible friction.

3. When the system is first let go, it will accelerate. Suppose that the horizontal mass M = 500 g, and the suspended mass m = 100 g. What is the <u>net force</u> that is accelerating the system of two masses?

4. In the above situation, what is the total amount of mass being accelerated?

5. The smart pulley measures the acceleration of a point on the string that passes over it. If there is no friction and the string remains taut, what other condition must apply to the pulley and string so that the two masses have the <u>same</u> acceleration?