

Name: _____

Number: _____

Date: ____/____/____

Unit 3: Newtonian Mechanics – Mass, Force, and Newton’s Laws

LAB: Friction and Sliding Masses

Objective:

- Determine the relationship between mass and coefficient of static friction
- Calculate the coefficient of static friction for a friction block on an aluminum track

Hypothesis: (“If...then...” and also “Therefore, the coefficient of static friction can be found by...”)

Background:

- On what principles did you base your hypothesis and your procedure?

Equipment:

- Aluminum track
- Friction block with removable masses
- Protractor

Procedure:

- Set up your system as shown with an aluminum track inclined as shown by the top dotted line. Mass m_1 is a friction block with additional mass(es) inside of it. Tilt the track until the mass *just begins* to slide and make appropriate measurements. State the measurements and calculations you will perform in order to meet the objective.



