

# **Physics Lab 3 Report: LEVERS**

Due by Thursday, 2/9 - all classes

## **INTRODUCTION:**

Answer all questions below:

1. What is a lever?
2. Describe an example of a lever we have in the human body.
3. Describe an example of a lever we use in everyday life (beyond what was discussed in the human body. HINT: think of tools!)
4. What is the purpose of this lab? What will we be calculating?
5. What does mechanical advantage mean?

## **CONCLUSIONS:**

Answer all questions below.

1. What was the maximum mechanical advantage for the class 1 lever?
2. What was the maximum mechanical advantage for the class 2 lever?
3. What was the maximum mechanical advantage for the class 3 lever?
4. Which class lever had the highest mechanical advantage, according to your results from the lab?

5. Mechanical advantage can also be calculated by length of effort arm divided by length of load arm. This means that we can calculate which class lever should have had the highest mechanical advantage, in theory. The highest theoretical mechanical advantage would be for the class lever that has the longest effort arm. **So, which class lever should have had the longest effort arm? (hint: use the lab manual, and look for the class lever that shows the longest effort arm in the diagram).**
6. Do your results from the lab match the theoretical prediction you made in the previous question?
7. What errors and/or limitations occurred during this lab?
8. How can what was learned be used in the real world?