Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ideal Mechanical Advantage Practice**

1. What is the ideal mechanical advantage of a lever with a resistance arm of 3 m and an effort arm of 12 m?

2. Suppose you held the handles of a wheelbarrow 24 feet from where they are attached to the wheel. The heavy stone in the wheelbarrow was 12 feet from the wheel. What is the ideal mechanical advantage of the wheelbarrow?

3. What is the I.M.A. of a lever with a resistance arm of 1.5 feet and an effort arm of three

feet?

4. A lever has an effort arm of one foot. The resistance arm is .5 foot. What is the ideal mechanical advantage?

5. What is the ideal mechanical advantage of a lever with a resistance arm of 1 foot and an effort arm of three feet?

6. Suppose you need to remove a nail from a board by using a claw hammer. If the effort length for a claw hammer is 11.0 cm and the resistance length is 2.0 cm. What is the mechanical advantage?