

Name \_\_\_\_\_

Date \_\_\_\_\_

**Mechanical Advantage Worksheet**

**Directions: Find the mechanical advantage of each simple machine. Use the formulas we learned in class.**

1. You apply a force of 18 N on to the end of a lever to open a paint can lid. The resistance of the lid is 9 N. Calculate the MA.

2. A child makes a ramp to push his toy dump truck up to his sandbox. If he uses 5 newtons of force to push the 12-newton truck up the ramp, what is the mechanical advantage of his ramp?

3. To lift a block on a movable pulley, you can apply a force of 50 N to a rope. The rope applies a force of 700 N to the block. What is the mechanical advantage of the rope?

4. A wedge with a mechanical advantage of 0.78 is used to raise a house corner from its foundation. If the output force is 7500 N, what is the input force?

5.