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

Chapter 8 Review- Sections 8.1-8.8 pages 101-115

1. Billy lifts a box that weighs 575 N a height of 1.5 m. How much work does he do?
2. Patrick does 800 J of work lifting his 35 kg sister. How high did he lift her?
3. A certain motor does 2000 J of work in a time of 4.5 seconds. How much power did the motor output?
4. Using the information from above, how many horsepower is the engine?
5. A student measures his power output to be 650 Watts running up the stairs. If the stairs are 4.2 meters high and he has a mass of 55 kg, how much time did it take the student?
6. A crate that has a mass of 18 kg is lifted 20 meters off the ground. How much potential energy does it have?
7. A toy car of mass 2 kg is moving along at 5 m/s. What is the car’s kinetic energy?
8. A 5 kg mass has is raised off the ground until it has 355 Joules of potential energy. How high was it lifted?
9. A mover uses an inclined plane to lift a 55 kg dresser into the back of his truck. How much force does the mover exert if the truck is .8 meters off the ground and the ramp is 5 meters long?
10. In the above example, what is the ramp’s mechanical advantage?
11. A person using a pulley system pulls 15 meters of rope in order to lift an object 3 meters. If the object’s mass is 25 kg, how much force does he exert?
12. In the above example, what is the mechanical advantage?