Work & Power: Worksheet #2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Check your answer for the proper units and box.**

1. A force of 825 N is needed to push a car across the parking lot. Two students push the car 35.0 meters.
   1. How much work is done?
   2. After a rainstorm, the force needed to push the car doubled because the ground became soft. By what amount does the work done by the student change?
2. A delivery clerk carries a 34.0 N package from the ground to the fifth floor of an office building, a total height of 15.0 m. How much work does the clerk do?

1. Calculate the work done by a forklift raising a 583-kg box 1.20 meters.
2. A box that weights 575 N is lifted a distance of 20.0 m straight up by a rope. The job is done in 10.0 seconds. What power is developed in watts and kilowatts?
3. A rock climber wears a 7.50-kg backpack while scaling a cliff. After 30.0 minutes the climber is 8.20 above the starting point.
   1. How much work does the climber do on the backpack?
   2. If the climber weights 645 N, how much work does she do lifting herself while wearing the backpack?