Force (N)	
mass (kg)	accel (/ms^2)

Work (N·m or J)	
Force (N)	Distance (m)

Work (N·m or J)	
Power (W)	Time (s)

Name _____
Hour ____

Accel caused by Gravity on Earth = 9.8 m/s^2

Work & Power Worksheet

1. How much work is done by a crane that lowers 1,000 newtons of material a distance of 150 meters?

2. How much work is done when a 1 kilogram mass is raised a vertical distance of 1 meter?

3. A 49 newton rock is lifted 2 meters in 5 seconds.

   a. How much work is done?

   b. What power is used?

4. A teacher pushed a 98 newton desk across a floor for a distance of 5 meters. She exerted a horizontal force of 20 newtons. How much work was done?

5. A weight lifter lifts a 1000 newton barbell above his head from the floor to a height of 2.5 meters. He holds the barbell there for 5 seconds. How much work does he do during that 5 second interval?

6. A student who weighs 500 newtons climbed the stairs from the first floor to the third floor, 15 meters above, in 20 seconds.

   a. How much work did she do?

   b. What was her power?

7. A box is pushed across the floor for a distance of 5 meters with a force of 50 newtons in 5 seconds.

   a. How much work is done?

   b. What is the power?

   c. If the box is pushed back again, what is the total amount of work done?

8. A woman lifts a 300 newton child a distance of 1.5 meters and carries her forward for 6.5 meters.

   a. How much work does the woman do in lifting the child?

   b. How much work does the child do?