

18. An electric motor lifts a 2500 kg elevator 12 m in a $\frac{1}{2}$ minute.

a) how much work is done? _____

b) How fast is the work done in watts? _____ in kilowatts? _____

c) What is the term Physicists use for part b? _____

19. Jason did 327 J of work in lifting a box 3 m off the floor.

a) How much force did he apply? _____

b) Show a unit check for part a.

20. A box is pulled .6 km across a level floor by a rope that makes a 32 degree angle with the floor. If the tension in the rope is 126 N,

a) find the work done in Joules _____

b) Why do you have to use a component of the applied force to find the work done?

21. How many joules of work must be done on an electric generator to operate a 75 watt light bulb for 1 hour?