

13.1 worksheet (Extra Help)

Name \_\_\_\_\_

*Write down givens, show work, and circle final answer.*

1.  $W =$              $P =$              $t =$              $d =$              $F =$
2. How much work is done when a man applies a 40 N force over a distance of 38 meters?
3. How much force is required to do 800 J of work when pushing a box 108 meters?
4. A man exerts 6800 J of work to move a box 33 meters. How much force was he applying?
5. How much power is exerted by a person exerts 66 J of work in 88 seconds?
6. A woman exerts 90000 W of power while doing 333 J of work. How long is she working?
7. **Challenge.** A boy exerts 7890 N of force to move a box 50 meters in 30 seconds. How much power does he exert?

8. How much work does it take to push a car with 145 N over a distance of 500 m?
9. How much work does it take to climb a 0.233 km rope? (It takes 1000 N of force to get to the top)
10. How much force are you applying to a box if you push it 2300 cm and it takes 8520 J of work?
11. How far do you push a box if it takes 5000 N of force and 10983 J of work?
12. Solve for the unknown.  
Work = 456456.456 J  
Distance = 45.225 km  
Force = ???

13. How much power does it take to move a box if you apply 3000 J of work over 1 minute?

14. How much power does it take to move a stone if you apply 450 J of work over 0.2 minutes?

15. How long does it take you to move a car if you apply 34567 W of power and 456 J of work? (I want the answer in hours)

16. You apply a 4500 N force over 3000 cm in 30 seconds. How much power did you produce?