**Work and Force Problems ( Be sure to write the correct unit)**

1. A student performed 50 joules off work by raising an object 2 meters up a pulley. What is the force on the object?
2. A gardener uses a lever to lift a rock from the ground. The gardener applies a force of 50 Newton’s and moves the rock 1.5 meters. How much work is being done by the gardener?
3. If you apply a constant force of 1N on a book to pick it up off the floor and set it on a desk 1m high, how much work did you do on the book?
4. If the work done is 360J and the force used to do the work is applied over a distance of 12m, what is the value of the force?
5. If the work done is 280J and the force used to do work is applied over a distance of 7 m what is the value of the force?
6. You and your friend together apply a force of 1000N to a car, which makes the car roll 10m. How much work did you and your friend do together?
7. When pushing a shopping cart 10m you did 100J of work. How much force was required?
8. You lift a chair that weighs 50N to a height of 0.5m. How much work did you do on the chair?
9. A stage Manager at a play raises the curtain 4m by doing 5,976J of work on the curtain. How much force was required?
10. You use a wheelbarrow to move firewood 10m, with a force of 425N. How much work did you do?
11. A deflated hot air balloon weighs a total of 8,000N. Filled with hot air, the balloon rises to a height of 1,000m. How much work is accomplished?
12. A rope is thrown over a beam and one end is tied to a bundle of wood. You pull the free end of the rope 2m with a force of 400N to lift the lumber off the ground. How much work have you done?
13. A boy rides a bicycle a total of 200m at a constant speed. The frictional force against the forward motion of the bicycle equals 35N. How much work does the boy do?
14. A horse applies a force of 120N to pull a wagon a distance of 50,000m along a level road. How much work is done?
15. A force of 700N is required to keep an automobile moving at a constant speed on a level road. How much work is done in moving the car 14,000m?
16. It takes 4, 000J of work to raise the elevator 80m. How much force is being applied?
17. Greg used 500J of work to move a box 5m. How much force did he apply?
18. A construction worker lifts 20 bricks 2m off the ground and does 200J of work. How much force did he use?
19. Mr. Jones builds a ramp that is 6m long, and he carries a heavy box up the rope and into his truck. If Mr. Jones uses 120J of work, how much force did he apply?
20. If the work done is 350J and the force used to do the work is applied over a distance of 7.0m, what is the value of the force?