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GRADE 9 PHYSICS WORK SHEET

- 1. Two forces F1 and F2 are at right angle to each other are applied on 13 kg body if F1=48N what must be the value of F2 in in order for the acceleration of the body to be 4m/s²
- 2. A spring stretched 5cm when a load of 80N is suspended from its end what load is needed to stretch the spring by 2cm
- 3. Two children are fighting over a toy car one pull on it with a force of 50N due east the other pull with a force of 54N due west what is the net force on the toy
- 4. The weight of a person on the Mars is 190N what is the weight of person if he land on the moon $\mathbf{g}_{Mars} = 3.8 \text{m/s}^2$ $\mathbf{g}_{Moon} = 1.6 \text{m/s}^2$
- 5. A 20kg object accelerate from 4m/s to 6m/s in a distance of 5m find force of the object
- 7. A 20N force act on a 10kg object accelerate from 4m/s to 6m/s find a distance covered by the object
- 8. The gravitational acceleration on the surface of planet X is 4/5 of that on the surface of the earth which one of the following is true about a body on the surface of planet X as compared to that it has on the earth

 A. mass of a body is 4/5 times

 B mass of a body is 5/4 times

 C. weight of a body is same

 D. weight of a body is 4/5 times
- 9. One newton is equivalent to the force needed to accelerate a 1kg mass at 1cm/s²
 B. of gravity on 1kg mass at 1m/s
 D. needed to accelerate 1kg mass at 1m/s²
- 10. The box rests on a level on horizontal surface the minimum value of force required to start the motion of the box is 100N what is the value of frictional force if coefficient of friction 0.2 mass of the box 5kg it accelerate at 2.5m/s²
- 11. A 20kg object accelerate from 4m/s to 6m/s find impulse of an object
- 12. The force of static friction between a body of mass 20kg and horizontal table is measured to be 80N what is coefficient of static friction

- 13. A body of mass 25kg is pushed on a horizontal surface by applying a 200N horizontal force on it the coefficient of kinetic friction is 0.4

 I. what is acceleration
 - II. If the body start from rest find distance in 10 second