

INTERNATIONAL INDIAN SCHOOL, TABUK

PHYSICS WORKSHEET

"FORCE AND LAWS OF MOTION"

CLASS: IX

Q1. Define the term force.

Q2. State Galileo's law of inertia.

Q3. What is the measure of inertia of a body?

Q4. State Newton's first law of motion.

Q5. Which law of motion is also called 'law of inertia'?

Q6. Give the magnitude and direction of force acting on a small water drop falling down with constant velocity.

Q7. Define momentum of a body.

Q8. Write the S.I unit of momentum.

Q9. State Newton's second law of motion.

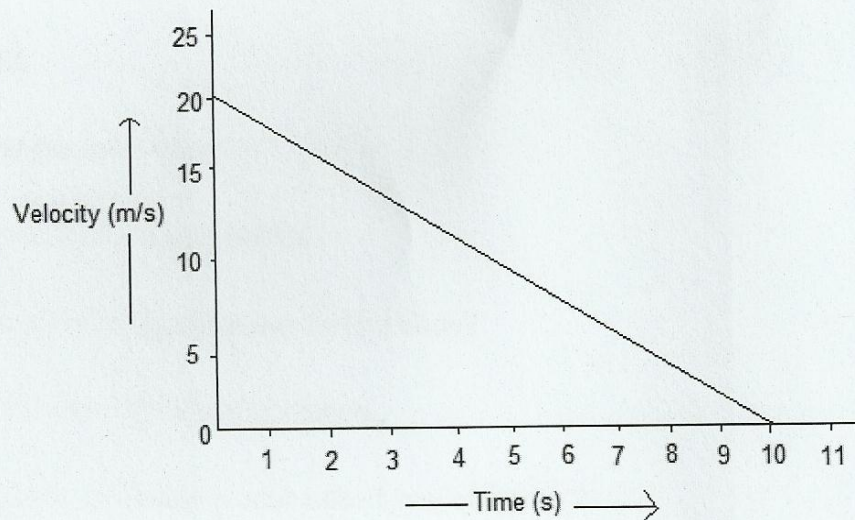
Q10. State the relation between force and momentum.

Q11. A toy car of mass 250 g is moving with a velocity of 5 m/s. What is its momentum?

Q12. Calculate the change in momentum of a car of mass 1000 kg when its speed increases from 36 km h^{-1} to 108 km h^{-1} uniformly.

Q13. A body of mass 50 kg has a momentum of 250 kg m/s. What is its velocity?

Q14. The velocity - time graph of a ball of mass 20 g moving along a straight line on a long table is given in figure below,



How much force does the table exert on the ball to bring it to rest?

Q15. A car of mass 2400 kg moving with a velocity of 20 m/s, is stopped in 10 s on applying brakes. Calculate the retardation and the retarding force.
