



KALPAVRUKSHA MODEL SCHOOL

ASSIGNMENT

Class: IX

Sub: Physics

Date: 18.08.2021

Topic: Force and Laws of Motion

I. Complete the assignment questions given below.

1. A particle of 10 kg is moving in a constant acceleration 2m/s^2 starting from rest. What is its momentum and velocity per the table given below

S.No	time	Momentum	Velocity
1	1sec		
2	1.5 sec		
3	2 sec		
4	2.5 sec		

2. If a net force of 7 N was constantly applied on 400 g object at rest, how long will it take to raise its velocity to 80 m/s?
a. 0 s b. 2.23 s c. 3.47 s d. 4.57 s
3. A sedan car of mass 200kg is moving with a certain velocity . It is brought to rest by the application of brakes, within a distance of 20m when the average resistance being offered to it is 500N.What was the velocity of the motor car?
4. A driver accelerates his car first at the rate of 4 m/s^2 and then at the rate of 8 m/s^2 .Calculate the ration of the forces exerted by the engines?
5. A body of mass 25 kg has a momentum of 125 kg m/s. calculate the velocity of the body.

II. Read the lesson Force and Laws of Motion from the textbook: