

Q1: what is meant by momentum ?

1. Define the law of conservation of momentum
2. Calculate the momentum of 3 kg ball moving with the velocity of 9 cm/min ?
3. A trolley contain a mass of 8kg and moving with a velocity of 7 m/s collides with a ball which is at rest , the ball has a mass of 2 kg , the trolley stops and the ball then starts to move calculate with what velocity the ball is moving after the collision ?
4. All prove the momentum doesn't get lost

Q2: define the relationship of force and momentum with derivation ?

A. What is meant by Impulse?

Q3: a force of 8 N is applied to Ball for 1.06 min Calculate

1. The impulse on ball
2. Change in momentum of the ball

Q3: a Bus is moving with the velocity of 30m/s of mass 3000kg comes to rest in 2 min after the collision calculate:

1. The change In momentum of the car
2. The stopping force applied to the car

All the answer should be in SI units