

Numericals

Practice. Learn. Succeed

Sub : Science

Grade: IX

Date:

Name:

ID No.....

Important Formulae

■ Force, $F = ma$

■ Momentum, $p = mv$

■ Total momentum before collision = Total momentum after collision

$$m_1u_1 + m_2u_2 = m_1v_1 + m_2v_2$$

1. A hammer of mass 500 g moving at 50 ms^{-1} , strikes a nail. The nail stops the hammer in a very short time of 0.01 s. What is the force of the nail on the hammer?

2. Velocity versus time graph of a ball of mass 50 g rolling on a concrete floor is shown in figure. Calculate the acceleration and frictional force of the floor on the ball.
