

Module 07 - Lesson 1

Momentum

Question 1: What is the magnitude of the momentum of a 1000-kg car travelling at 10 m/s?

Question 2: The speed of the fastest-pitched baseball during a game was 40 m/s for a ball of mass 145 g. If the ball was moving at an angle of 10° above the horizontal at the moment it was travelling at its maximum speed, find the components of the momentum of the ball.

Problem: A ball of mass m is thrown straight up into the air with an initial speed v_0 . Find the magnitude of the momentum of the ball at one-half its maximum height in terms of m and v_0 .