

PRACTICE D

Conservation of Momentum

3. Each croquet ball in a set has a mass of 0.50 kg. The green ball, traveling at 12.0 m/s, strikes the blue ball, which is at rest. Assuming that the balls slide on a frictionless surface and all collisions are head-on, find the final speed of the blue ball in each of the following situations:
 - a. The green ball stops moving after it strikes the blue ball.
 - b. The green ball continues moving after the collision at 2.4 m/s in the same direction.