

Analyze and Evaluate

- (a) The angle of incidence was equal to the angle of reflection within the limits of error of the experiment.
- (b) In this special case, the reflected ray lies on the path of the incident ray.
- (c) Sample answers: The mirror might not be perfectly vertical, and the incident ray, reflected ray, and the paper surface might not all be on the same plane. There could also be errors in reading the correct angles using the protractor.

- (d) The errors could make it appear that the angle of reflection is not exactly equal to the angle of incidence in the various trials.

Apply and Extend

- (e) When one billiard ball strikes another and rebounds, its direction of travel can be predicted by thinking of it like a light ray reflecting off a mirror.
- (f) Sample answers: hockey (passing off the boards), shuffleboard (bouncing one puck off another puck in a desired direction), and basketball (making bounce passes).