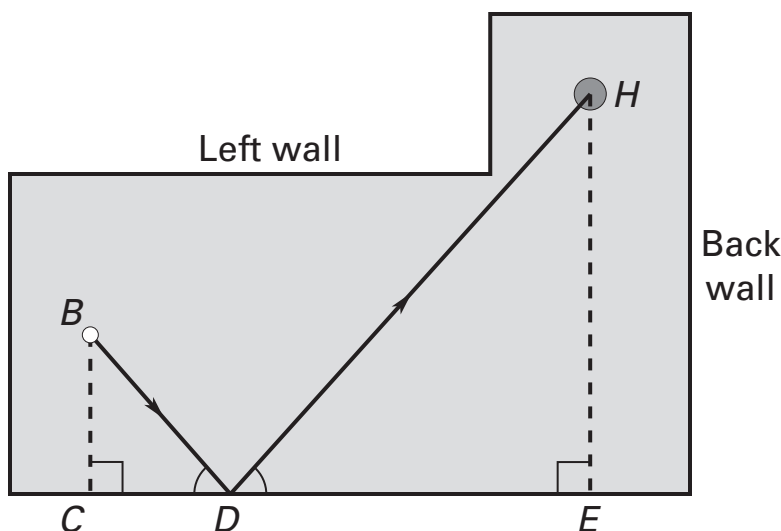


Application Lesson Opener

For use with pages 480–487

You can use similar triangles when playing miniature golf. In the diagram below, a golf ball putted from point B hits a wall at D and travels into the hole at H . By physics, the angles that the path of the ball makes with the wall are always congruent. The challenge for the golfer is in putting the ball so that it hits the wall at the correct point.



- Two similar right triangles are shown in the diagram. Name the triangles and any pairs of congruent angles. Write the statement of proportionality for the triangles.
- Trace the diagram except for the path. Draw a path for the ball to reach the hole in one putt by hitting the *back* wall instead of the right wall. Use a protractor to verify congruent angles.
- Trace the diagram except for the path. Draw a path for the ball to reach the hole in one putt by hitting *two* walls. (*Hint*: Hit the left wall first.) Use a protractor to verify congruent angles.
- Design your own miniature golf hole that requires the ball to hit one or two walls. Draw at least one possible path to the hole.