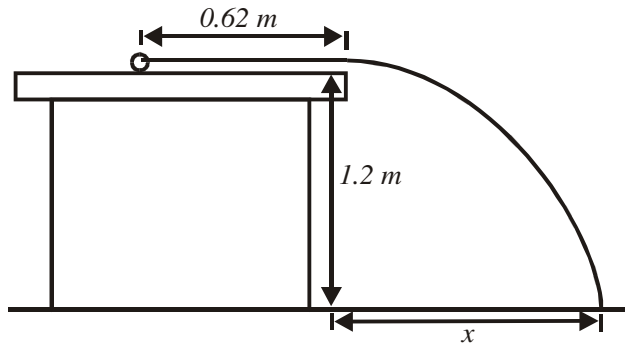


3. A ball rolls across a table at a constant speed for 0.62 m. It then falls onto the floor. It takes the ball 0.35 s to cover the 0.62 m. The path of the ball is shown in the drawing. The tabletop is 1.2 m above the floor. Find x , the distance that the ball travels horizontally after it leaves the tabletop.



4. A ball is kicked towards a fence from a point 32.0 m away. The velocity of the ball as it leaves the kicker's foot is 20.0 m/s at an angle of 37.0° with the horizontal. The top of the fence is 2.50 m. Air resistance is negligible. Find:

- (a) The time it takes for the ball to reach the plane of the fence.
 (b) Will the ball hit the fence? If so, how far from the top of the fence will it hit? If not, how far above the fence will it pass?

