Answer #7

The answer is (b); the ball will land BEHIND the funnel, as can be seen on the mpeg video obtained by clicking your mouse on the photograph below.

The ball falls BEHIND the funnel because the cart is being accelerated. After the ball is ejected its horizontal velocity remains constant, while the horizontal velocity of the cart continues to increase, so the cart accelerates away from the ball.

For questions and comments regarding the Question of the Week contact Dr. Richard E. Berg by e-mail or using phone number or regular mail address given on the Lecture-Demonstration Home Page.