

Physics 200 Projectile Motion Sample Problems:

Practice Quiz problems:

1. You kick a ball at 39 degrees above horizontal, flat ground toward a wall 12.3 m distant. If the ball leaves your foot at 7.6 m/s, does it reach the wall? If so, how high up the wall does the ball strike? If not, how close to the wall does the ball get before striking the ground. Assume the wall is high enough that the ball will not go over.
2. You toss a dart horizontally from 1.5 m above the ground. If it lands 6.1 m distant, what was the initial speed? How long was it in the air?

Problems inspired by lab 3: projectile motion.

3. You launch the ball at a 30 degree angle above the horizontal off of a 0.85 m tall table. It lands 2.15 m distant from the base of the table. Find the initial velocity of the ball.