Chapter 2 Problem 41 [†]

Given
$v = 3\ m/s$
$h = 6.5\ m$
$h_0 = 1.3\ m$
$g = -9.8\ m/s^2$

Solution
Find the initial velocity of the frisbee.

Use the following kinematic equation.

$$v^2 = v_0^2 + 2a(x - x_0)$$

Solve for v_0.

$$v_0^2 = v^2 - 2a(x - x_0) = (3\ m/s)^2 - 2(-9.8\ m/s^2)(6.5\ m - 1.3\ m) = 110.9\ m^2/s^2$$

Take the square root gives

$$v_0 = 10.5\ m/s$$

[†]Problem from Essential University Physics, Wolfson