Kinematics Homework Problems #6

p. 44; #41 + modified Problems

Problems taken and modified from the school's old textbook:
Giancoli, D. (1980). *Physics*, 2nd Ed. Englewood Cliffs, NJ: Prentice Hall.

Answers are provided at the bottom of the page.

36a. A chicken jumps from a cliff with a velocity of 5.4 m/s at an angle of 42.8°. She reaches the water below 4.1 s later. How high was the cliff and how far from its base did the chicken hit the water?

41. A football is kicked with a speed of 21.0 m/s at an angle of 37° to the horizontal. How much later does it hit the ground? Ignore air resistance.

48a. A burglar running from the police jumps from the ground at a 24° angle and travels 6.55 m. What was his takeoff speed?

Answers:

41. 2.58 s