Class 9: More projectile motion

Test 1

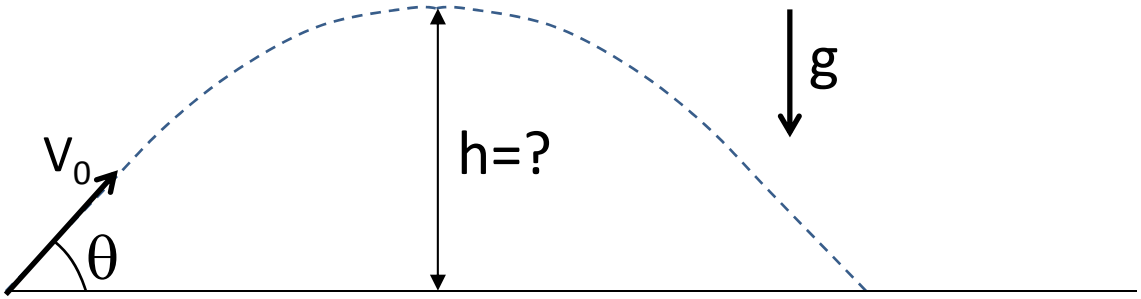
1. Next Wednesday (Feb 11) 11:00-11:50 in this class room.
2. From beginning up to projectile motion.
3. No formula or cheat sheet.
4. 8 multiple choice problems (5 points each) and 2 long (30 points each) problems. Total 100 points.
5. Calculators allowed, but not the program function (though I don't think it will help).
6. Please bring photo ID.
7. No reschedule of test even though you have more than two tests that day.
8. Next Monday classwork will be a multiple choice exercise on the test materials. This classwork will not be returned.

Physics Resource room

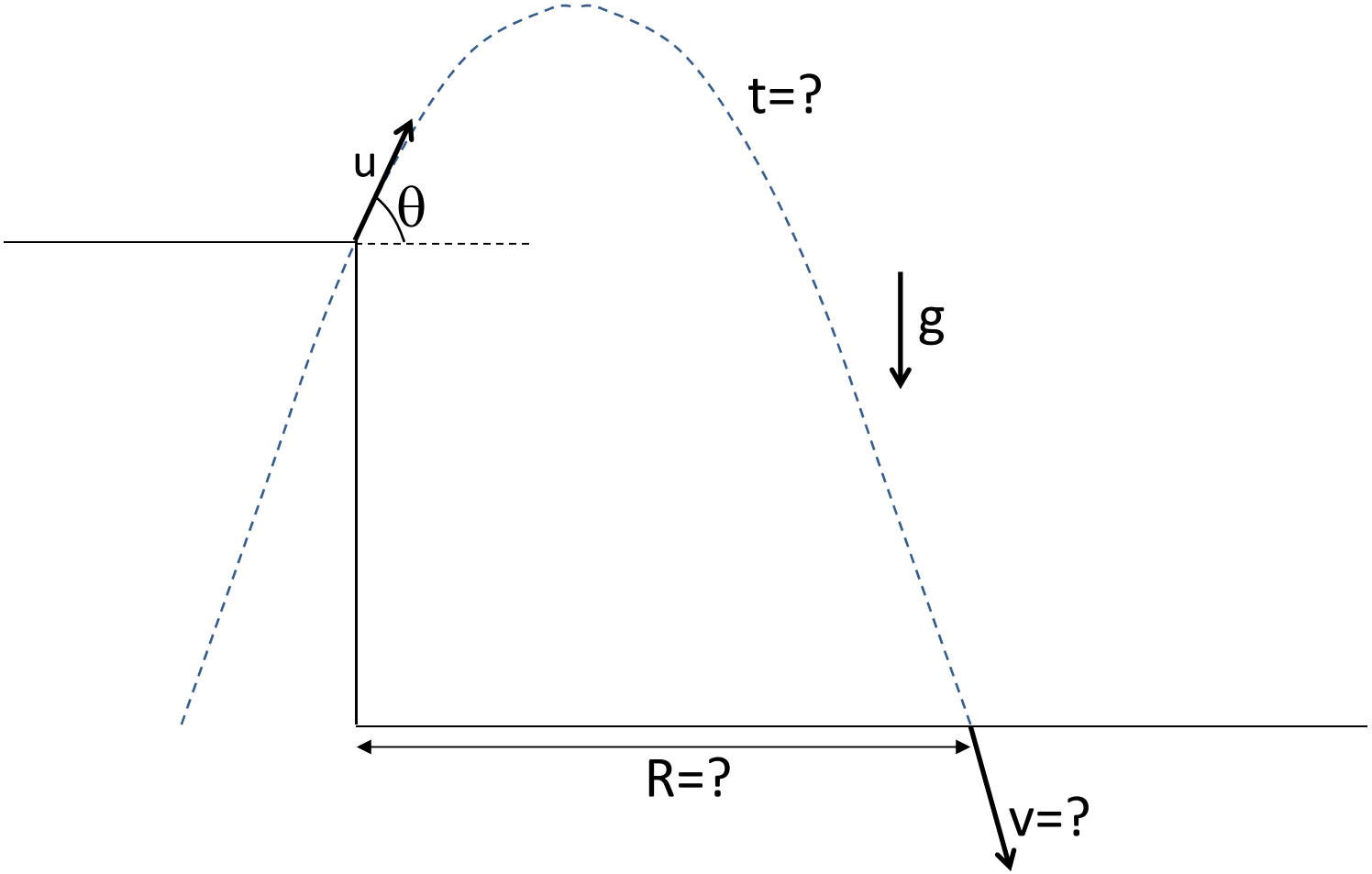
10:00 – 4:00 Monday to Thursday

Place: CP 395

Example 1



Example 2



[Short version]

Example 3

A block is fired up along a frictionless plane inclined at angle β, with an initial speed u. A ball is simultaneously thrown upward at angle θ (both β and θ are measured with respect to the horizontal). The objects start at the same location, as shown in the figure. What should be the initial speed of the ball (relative to ground) for the ball to land on the block?

[Adopted from textbook "Problems and Solutions in Introductory Mechanics" by David Morin (problem 3.11), with modification to make it simpler.]