Due at the beginning (first 20 minutes) of the workshop on Monday, December 3

Please hand in Problem 3 from Workshop 11 and Homework 10 below separately. Each of these TWO assignments should be written neatly and stapled, and have your full name written in capital letters on the front page. Assignments that fail to satisfy these conditions may be disregarded. Provide full justifications (or show your work) for your statements. Solutions without justifications will receive little or no credit.

Hand in:
5.3: 8 (1 point), 14(1 point), 26(1 point), 30(1 point), 42(1 point), 46(3 points)
5.4: 14(3 points), 16(3 points), 20(3 points), 24(2 points), 30(2 points), 32(3 points), 36(4 points), 44 (2 points)
5.5: 10 (6 points=2 points for the distance, 2 points for the displacement, 2 points for the motion diagram, no partial credit within each of the 2 points), 18 (3 points)
5.6: 8(2 points), 10(1 point), 16(1 point), 28(1 point), 52(1 point), 88(2 points)

Additional Problem. (3 points)
A flying plane passes at some point directly over a radar station. How fast does the distance between the plane and the radar station change when the plane is directly above the station?
Write down a rigorous and complete justification for your answer.

Note: The plane might start flying precisely when it is above the radar station. But it may also start flying a while before passing above the radar station.

You may NOT assume that the plane starts flying precisely above the radar station. You may also NOT assume that the plane starts flying before passing above the radar station.

Solve, but do not hand in:
5.3: 1-7, 9-13, 15-25, 27-29, 31-41, 43-45, 47-55, 60, 67, 68
5.4: 7-13, 15, 17-19, 21-23, 26, 27, 31, 35, 39
5.5: 1, 3, 21, 29, 30
5.6: 7, 9, 11, 12, 13-15, 17-27, 29-51, 53-72, 75, 76, 83, 85, 87, 98

It is your duty to make sure that you understand why points were taken off your homework/workshop problem and what the correct solution in each case is. You should therefore analyze your graded assignments carefully and ask questions during the workshops and office hours.

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1 Your workshop problems will be graded by your teaching assistant, while your homework will be graded by the peer mentor for your recitation.