

Math 385, Section M1

Homework 8

Due March 29, 2007, before class

Problem I: Textbook page 207, Exercises: 5, 7, 9, 25.

Problem II: Turn in, stapled separately and with your name on it, the solutions to Project III.

Problem III: This is an optional problem. Turn it in separately.

The mass of a car that acts on one wheel is 100 kg. The elasticity (spring) constant in the suspension system of that wheel is $k = 10^4 N/m$. Design the strut (find the friction/resistance constant c) such that any vertical motion of the wheel (set up for example by going over a bump or pothole on the road) will die out in the shortest amount of time.