

Problem Set #8 Due Friday June 1, 2007

1. Thornton and Marion, p. 507, #12.1

Hint: The "absence of coupling" means that each mass is held fixed in turn so that the other mass oscillates at its "natural" frequency, determined in part by κ_{12} , *i.e.*, $\kappa_{12} \neq 0$. "Compare the magnitudes" means to write all the various frequencies in order of increasing or decreasing magnitude.

2. M&T, p. 507, #12.2

Hint: To show that the "energy transfer is incomplete" means to show that even when the displacement of one of the oscillators is at its maximum, the displacement of the other is not zero.