



Practice Problem 2

Physical Chemistry I

Fall 2003

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This is an optional practice problem for you to work. Answers will be posted on the web. If you desire some extra credit this term, you may hand in up to 5 of these for a total of 10 extra credit points added to your weekly problem set score. To receive extra credit, these must be handed in by the next class period.

The particle in the box wavefunctions for the $n=4$ and $n=6$ states are given below. Show explicitly that these functions are orthogonal.



Show explicitly that any two one dimensional particle in the box states m and n are orthonormal.

The Culture of Chemistry



If anybody says he can think about quantum problems without getting giddy, that only shows he has not understood the first thing about them.

Max Planck