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Physics 404   **HOMEWORK ASSIGNMENT #7**   **Spring 2009**

Due date: Tuesday, April 7   **Deadline:** Thursday, April 9

B means a problem in Blundell & Blundell's text; GT means a problem in Gould & Tobochnik.

1. B 20.1. The second part is essentially the same as the first, so don't redo everything; just indicate what the replacement is for $\hbar\omega$ in the formulas you just worked out for the SHO in the high-temperature approximation. Eq. 20.46 shows up in physics in many different contexts; you should be familiar with its behavior.

2&3. B 20.5 Lots of parts, so counts as 2 problems. Review section 17.3.

Read problems 20.7 and 20.8; the solutions are rather obvious, arguably trivial, but the results are very worth noting.

4. B 21.1 Part of this was done in class.   B21.2 is also well worth a look, but is not assigned