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## 449 Homework #3

<< "<http://www.physics.wisc.edu/~tgwalker/448defs.m>"

- 1) Townsend 10.2
- 2) Townsend 10.7
- 3) Townsend 10.13
- 4) Townsend 10.19
- 5) What is the degeneracy and parity of the  $17/2 \hbar\omega$  energy levels of the 3d isotropic harmonic oscillator? Calculate the wavefunction of the  $l = 5$  state.
- 6) Townsend 12.2
- 7) Townsend 12.4
- 8) Townsend 12.6