

PHYS 328

NOTES FOR THE FIRST HOUR EXAM --

2013

The first hour exam will be given in the classroom on Thursday 17 Oct. You will have the full class time to complete the test. The exam will be closed book, closed notes; no calculators (or other electronic devices) may be used (but they will not be needed).

As I did in Phys 301, I will provide you with a list of formulae and results. You will not need to memorize anything, but you will need to understand what the equations mean, and how and when to use them. I might provide you, say, with alternate versions of Stirling's approximation :

$$N! \approx N^N e^{-N} \sqrt{2\pi N}$$

$$\ln N! \approx N \ln N - N$$

but you will need to know under which conditions you may use them.

The test will cover all the material done in class or assigned for reading from the beginning of the semester through the end of class next Tuesday (Oct. 15). I will be particularly interested in your ability to derive relationships using the basic equations of the course (first law of thermo, ideal gas law, equipartition theorem, PV work, computing multiplicities, finding entropy and heat capacity). There will be no Mathematica based questions on the exam.