

Physics 390: Practice problems for the final exam

Here is a list of problems from the book that cover much of the semester's material, although they may be different in style from the problems that will appear on the final. This list is for your own optional practice. Do as many or as few problems as you like—they will not be graded.

Basic experimental results: 3-5, 3-6, 3-16, 3-20, 3-21, 3-49, 3-50, 4-8, 4-10, 4-19, 4-42

Early quantum physics: 5-2, 5-3, 5-4, 5-9, 5-27, 5-29, 5-34, 5-35, 5-39

The Schrödinger equation: 6-5, 6-7 (misabeled in my copy of the book as 8-5, 8-7)

Particular solutions of the Schrödinger equation: 6-14, 6-16, 6-21, 6-30, 6-34, 6-41, 6-44, 6-48, 6-51, 7-1. (Problems 6-x are mislabeled as 8-x in my copy of the book.)

Atomic physics: 7-16, 7-17, 7-20, 7-32, 7-36, 7-42, 7-45, 7-46, 7-49

Statistical mechanics and condensed matter: 8-2, 8-17, 8-21, 8-23, 8-35, 8-44

Nuclear physics: 11-9, 11-11, 11-12, 11-17, 11-24, 11-30, 11-74

Particle physics: 12-6, 12-9, 12-10, 12-13, 12-17, 12-22, 12-25, 12-26, 12-30, 12-31

Astrophysics and cosmology: 13-4, 13-5, 13-14, 13-16, 13-29, 13-31, 13-35, 13-41