

# Physics 390: Practice problems for final exam

Here is a list of problems from the book that are similar in content to the ones that will be on the final (though the ones on the final may be longer or shorter). 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, 3-47, 3-48, 4-8, 4-10, 4-19, 4-40

**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

**Particular solutions of the Schrödinger equation:** 6-14, 6-16, 6-20, 6-29, 6-33, 6-40, 6-43, 6-46, 6-49, 7-1

**Atomic physics:** 7-16, 7-17, 7-19, 7-31, 7-35, 7-40, 7-43, 7-44, 7-47

**Statistical mechanics:** 8-2, 8-17, 8-21, 8-23, 8-35, 8-44, 10-18

**Solid state physics:** 10-10, 10-26, 10-27, 10-46, 10-49, 10-60

**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, 12-21, 12-24, 12-25, 12-29, 12-30