

PS 160 - Young and Freedman

Reading	Suggested Problems	topics
13.1-3 13.4-5 13.6, 14.1-2 14.3-5 15.1-3 15.4-5 15.6-8 16.1-2 16.3-4 16.5-8	Ch 13 - 7, 15, 23, 31, 33, 45 Ch 13 - 53; Ch 14 - 5, 17, 33, 37, 41 Ch 15 - 5, 7, 9, 17, 21, 23 Ch 15 - 29, 35, 45, 47; Ch 16 - 3, 11 Ch 16 - 15, 27, 31, 33, 39, 43	simple harmonic motion pendulum, etc physical pendulum, fluid pressure, density bouyancy, Bernoulli's eqn, laminar flow mechanical waves transverse waves, energy interference, standing waves, resonance sound waves intensity, standing sound waves resonance, beats, Doppler effect review
17.1-3 17.4-6 17.7 18.1-2 18.3-4 18.5-6 19.1-4 19.5-6 19.7-8 20.1-3 20.4-6 20.7-8	Ch 17 - 7, 15, 25, 29, 37, 55 Ch 17 - 59, 77; Ch 18 - 11, 13, 25, 29 Ch 18 - 17, 33, 35, 43, 48, 53 Ch 19 - 7, 9, 13, 17, 21, 25 Ch 19 - 31, 35, 37; Ch 20 - 3, 5, 7 Ch 20 - 11, 17, 21, 25, 31, 43	temperature, thermometers thermal expansion, calorimetry heat transfer equations of state kinetic theory I, heat capacity kinetic theory II, phase diagrams first law of thermodynamics internal energy, work, heat ideal gases, adiabats heat engines, reversibility refrigerators, second law of thermodynamics entropy review
33.1-2 33.3-5 34.1-2 34.3-4 34.5-8 35.1-3 35.4-5 36.1-3 36.4-5 36.6-7	Ch 33 - 5, 7, 17, 25, 47, 59 Ch 34 - 1, 7, 11, 25, 27, 31 Ch 34 - 51, 93; Ch 35 - 3, 9, 17, 23 Ch 35 - 27, 29, 35; Ch 36 - 9, 13, 17 Ch 36 - 25, 35, 39, 47, 60, 68	reflection, refraction TIR, dispersion, polarization spherical mirror thin lenses camera, eye, magnifier, telescope interference, two-slit thin films single-slit diffraction multiple slits, grating circular slits, resolution review