

TEXT: University Physics, Young & Freedman (12<sup>th</sup> Edition)

Suggested problems to master are below. These are from the 'Exercises' at the end of each chapter.

### Steps, Assignments

- 1 Study Chapter 21: Electric Charge and Electric Field
- 2 Work Problems: 1, 2, 5, 8, 13, 23, 27, 31, 33, 40, 47, 49, 53, 55, 57, 60, 64, 74, 78, 84, 89, 90, 93, 96, 99, 102, 104
- 3 Study Chapter 22: Gauss's Law
- 4 Work Problems: 2, 4, 5, 8, 11, 13, 23, 41, 44, 45, 51, 54, 55, 57, 58, 59, 61, 62, 65, 67
- 5 Study Chapter 23: Electric Potential
- 6 Work Problems: 5, 8, 17, 21, 23, 30, 32, 33, 34, 38, 41, 45, 47, 53, 60, 61, 63, 66, 70, 78, 79
- 7 Study Chapter 24: Capacitance and Dielectrics
- 8 Work Problems: 1, 3, 7, 11, 12, 15, 18, 19, 22, 27, 32, 38, 57, 60, 67, 68, 71
- 9 Study Chapter 25: Current, Resistance, and Electromotive Force
- 10 Work Problems: 1, 7, 11, 14, 18, 24, 27, 31, 36, 38, 53, 63, 68, 78, 79
- 11 Study Chapter 26: Direct-Current Circuits
- 12 Work Problems: 5, 11, 13, 14, 15, 20, 21, 22, 23, 25, 38, 41, 45, 47, 55, 58, 61, 64, 68
- 13 Study Chapter 27: Magnetic Field and Magnetic Forces
- 14 Work Problems: 1, 6, 8, 11, 15, 19, 22, 25, 31, 33, 35, 39, 40, 42, 45, 53, 62, 68, 72, 75, 77
- 15 Study Chapter 28: Sources of Magnetic Field
- 16 Work Problems: 1, 3, 8, 9, 12, 13, 14, 19, 21, 23, 24, 25, 27, 29, 30, 31, 35, 36, 37, 39, 40, 44, 53, 56, 59, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 73, 76, 81, 88
- 17 Study Chapter 29: Electromagnetic Induction
- 18 Work Problems: 1, 5, 7, 9, 10, 15, 19, 20, 23, 25, 26, 29, 35, 39, 49, 50, 51, 53, 60
- 19 Study Chapter 30: Inductance
- 20 Work Problems: 1, 4, 7, 9, 10, 13, 18, 19, 23, 29, 31, 38, 45, 48, 49, 51, 57, 63, 65, 66
- 21 Study Chapter 31: Alternating Current
- 22 Work Problems: 1, 5, 8, 11, 14, 19, 21, 26, 29, 30, 31, 35, 37, 38, 49, 50, 60, 61, 74
- 23 Study Chapter 32: Electromagnetic Waves
- 24 Work Problems: 1, 3, 5, 7, 8, 9, 15, 18, 37, 51, 53
- 25 Study Chapter 15: Mechanical Waves
- 26 Work Problems: 1, 3, 5, 6, 7, 10, 15, 19, 21, 22, 28, 31, 33, 35, 49, 59, 61
- 27 Study Chapter 16: Sound and Hearing
- 28 Work Problems: 1, 3, 5, 7, 11, 17, 21, 31, 33, 35, 43, 49, 50, 72, 75, 84
- 29 Study Chapter 33: The Nature and Propagation of Light
- 30 Work Problems: 1, 2, 7, 9, 12, 15, 17, 21, 22, 25, 31, 38, 41, 46, 47, 49, 52, 54, 57, 59, 62
- 31 Study Chapter 34: Geometric Optics and Optical Instruments
- 32 Work Problems: 1, 5, 6, 8, 10, 14, 17, 23, 26, 27, 28, 32, 33, 34, 47, 51, 66, 69, 80, 81, 89, 90, 91, 94, 110, 115
- 33 Study Chapter 35: Interference
- 34 Work Problems: 1, 4, 8, 9, 15, 17, 52
- 35 Study Chapter 36: Diffraction
- 36 Work Problems: 3, 4, 7, 23, 29, 31, 37, 39, 52