

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 1: Units, Physical Quantities and Vectors
- 2 Work Problems: 2, 10, 12, 24, 31, 32, 35, 38, 47, 50, 54, 59, 68, 80, 89
- 3 Study Chapter 2: Motion Along a Straight Line
- 4 Work Problems: 1, 6, 8, 21, 22, 34, 36, 40, 44, 47, 95
- 5 Study Chapter 3: Motion in Two or Three Dimensions
- 6 Work Problems: 3, 5, 9, 11, 19, 23, 28, 30, 37, 41
- 7 Study Chapter 4: Newton’s Laws of Motion
- 8 Work Problems: 1, 3, 4, 9, 11, 17, 22, 31, 35, 37, 41, 43, 55
- 9 Study Chapter 5: Applying Newton’s Laws
- 10 Work Problems: 2, 4, 8, 11, 14, 19, 24, 29, 43, 36, 42, 49, 55, 57, 118, 119
- 11 Study Chapter 6: Work and Kinetic Energy
- 12 Work Problems: 1, 4, 8, 10, 16, 27, 29, 33, 37, 43, 53
- 13 Study Chapter 7: Potential Energy and Energy Conservation
- 14 Work Problems: 2, 9, 12, 16, 18, 24, 26, 32, 37, 43, 46, 55
- 15 Study Chapter 8: Momentum, Impulse, and Collisions (8.6 will not be covered)
- 16 Work Problems: 1, 4, 8, 10, 16, 20, 24, 27, 32, 37, 42, 46, 47, 50
- 17 Study Chapter 9: Rotation of Rigid Bodies
- 18 Work Problems: 1, 2, 3, 5, 8, 9, 13, 19, 25, 29, 38, 36, 41, 39, 56, 63
- 19 Study Chapter 10: Dynamics of Rotational Motion
- 20 Work Problems: 1, 3, 8, 10, 13, 20, 72, 27, 34, 35, 40
- 21 Study Chapter 11: Equilibrium and Elasticity
- 22 Work Problems: 1, 5, 11, 14, 23, 25, 28, 33, 34, 37
- 23 Study Chapter 12: Gravitation (12.6 – 12.8 will not be covered)
- 24 Work Problems: 7, 13, 18, 23, 27, 29
- 25 Study Chapter 13: Periodic Motion (13.4, 13.6 – 13.8 will not be covered)
- 26 Work Problems: 2, 3, 5, 7, 14, 16, 22, 26, 44, 42, 47
- 27 Study Chapter 14: Fluid Mechanics
- 28 Work Problems: 1, 4, 7, 9, 13, 17, 23, 31, 33, 35, 37, 39, 41, 45, 49, 54, 57, 59, 72, 89, 97, 98
- 29 Study Chapter 17: Temperature and Heat
- 30 Work Problems: 3, 16, 24, 33, 45, 49, 62, 65, 70, 77
- 31 Study Chapter 18: Thermal Properties of Matter (18.5 will not be covered)
- 32 Work Problems: 1, 3, 11, 10, 15, 27, 41
- 33 Study Chapter 19: The First Law of Thermodynamics
- 34 Work Problems: 1, 3, 6, 10, 16, 24, 29, 33, 34
- 35 Study Chapter 20: The Second Law of Thermodynamics (20.8 will not be covered)
- 36 Work Problems: 1, 3, 4, 13, 15, 19, 21, 26, 31, 37, 40, 42, 43, 48, 51, 53, 55, 57, 58