DESCRIPTION

The 10th edition of Halliday, Resnick and Walker's *Fundamentals of Physics* provides the perfect solution for teaching a 2 or 3 semester calculus-based physics course, providing instructors with a tool by which they can teach students how to effectively read scientific material, identify fundamental concepts, reason through scientific questions, and solve quantitative problems. The 10th edition builds upon previous editions by offering new features designed to better engage students and support critical thinking. These include NEW Video Illustrations that bring the subject matter to life, NEW Vector Drawing Questions that test students conceptual understanding, and additional multimedia resources (videos and animations) that provide an alternative pathway through the material for those who struggle with reading scientific exposition.

*WileyPLUS sold separately from text.*

ABOUT THE AUTHOR

David Halliday is associated with the University of Pittsburgh as Professor Emeritus. As department chair in 1960, he and Robert Resnick collaborated on *Physics for Students of Science and Engineering* and then on *Fundamentals of Physics*. *Fundamentals* is currently in its eighth edition and has since been handed over from Halliday and Resnick to Jearl Walker. Dr. Halliday is retired and resides in Seattle.
Robert Resnick is professor emeritus at Rensselaer and the former Edward P. Hamilton Distinguished Professor of Science Education, 1974-93. Together with his co-author David Halliday, he revolutionized physics education with their now famous textbook on general physics, still one of the most highly regarded texts in the field today.

Jearl Walker, professor of physics at Cleveland State University, received his BS in physics from MIT in 1967 and his PhD in physics from University of Maryland in 1973. His book The Flying Circus of Physics was published 30 years ago, has been translated into at least 10 languages, and is still being sold world wide. For 16 years he toured his Flying Circus talk throughout the U.S. and Canada, introducing such physics stunts as the bed-of-nails demonstration and the walking-on-hot-coals demonstration to countless physics teachers, who then proceeded to hurt themselves when they repeated the stunts in their own classrooms. These talks led to his PBS television show Kinetic Karnival which ran nationally for years and which earned an Emmy.

NEW TO EDITION

• New in WileyPLUS;
  • Video Illustrations
  • Vector drawing questions
  • Links between homework problems and learning objectives.
  • Double the number of GO tutorials. Roughly 20% of all EOC problems in the book have a GO tutorial

• Concept Modules and Learning Objectives. Chapters were restructured into modules based on a primary concept. Each module begins with learning objectives (the skills and learning points that should be gathered in reading the module).

• Rewritten chapters. Based on his active teaching, Jearl Walker has identified material that students have been particularly challenged by (eg Gauss’ law and electric potential) and has rewritten this information so that the presentations are now smoother and more direct to the key points. Some other changes include expanded coverage of the Schrödinger equation including reflection of matter waves from a step potential and a decoupling of the discussion of the Bohr atom from the Schrödinger solution for the hydrogen atom.

• New Sample Problems and Homework Question and Problems. 16 new sample problems, 350 problems and 50 questions some of which come from prior editions back by popular demand.
FEATURES

• In WileyPLUS:
  
  • Robust online homework system includes ALL end of chapter problems in the book plus more online

  • Online aid in the form of just-in-time problem-solving tutorials, embedded reading quizzes, animated figures, hundreds
  of sample problems, simulations, demonstrations, and over 1500 videos ranging from MathSkills review to mini-lectures to
  examples and solutions.

  • Problem-Solving Help including every sample problem in the text available online in reading and video formats, hundreds
  of additional sample problems, GO tutorials, Hints on every end-of-chapter problem.

  • Math Skills Module (Chapter 0 in WileyPLUS)

• The Flying Circus of Physics, also written by Jearl Walker, is incorporated into sample problems, text examples and end-of-
  chapter problems providing interesting real-world physics.

• Reading questions (available online) help test for reading comprehension

• Checkpoints offer stopping points so students can check their understanding of a question.

• Sample problems demonstrate how problems can be solved with reasoned solutions rather than quick and simplistic plugging of
  numbers into an equation with no regard for what the equation means.

For additional product details, please visit https://www.wiley.com/en-us