

College Physics: Reasoning and Relationships. 2012. Nicholas Giordano. Cengage Learning, 2012. 9781285225340. 1208 pages

Nicholas J. Giordano is the James Huber Distinguished Professor of Physics and Head of the Department of Physics at Purdue University. In 2003, he was named Teacher of the Year for the state of Indiana and was also awarded the Outstanding Teaching Award for Undergraduate Teaching at Purdue. Giordano earned his Ph.D. at Yale University and is a respected researcher in the field of nanoscience.

1.2: Problem Solving in Physics: Reasoning and Relationships. 1.3: Dealing with Numbers (13). 1.4: Physical Quantities and Units of Measure. 1.5: Dimensions and Units (15). 1.6: Algebra and Simultaneous Equations (4). 1.7: Trigonometry (10). 1.8: Vectors (15). 1: Additional Problems (14). 1: Reasoning and Relationships (4). 1: Concept Checks (3). 1: Active Figures. Chapter 2: Motion, Forces, and Newton's Laws. 2.1: Aristotle's mechanics. 2.2: What is Motion? (37). "[Reasoning and relationships] is a very good approach. I plan on remembering it and using that concept...It nicely describes what we are trying to do in teaching college physics: think about what is going on, what principles apply, how these relate and then what we can do with it (noting that we may need to find/supply additional 'missing' information."David Aaron, South Dakota State University. "I believe the format of Giordano, with its triple emphasis on establishing a connection between forces and motion, helping the students construct systematic (5-step) approaches to problem solving, an