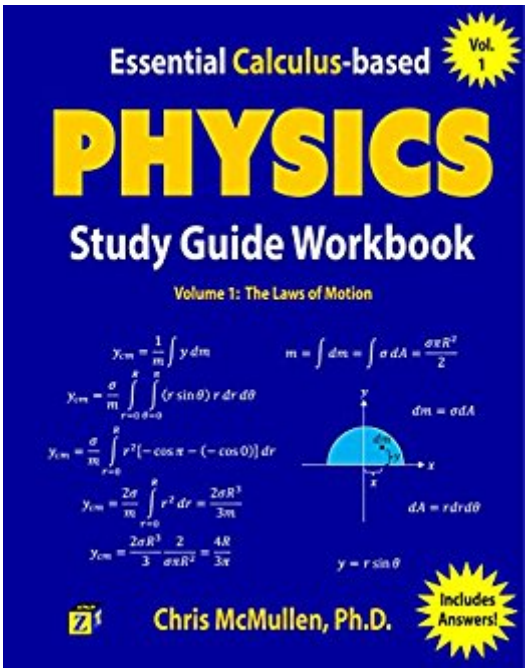
Essential Calculus-based Physics Study Guide Workbook: The Laws Of Motion (Learn Physics With Calculus Step-by-Step Book 1)



Synopsis

LEVEL: This book covers physics with calculus at the university level. (If instead you're looking for a trig-based physics book, search for ISBN 1941691145.) Note that the calculus-based edition includes all of material from thetrig-based book, plus ample coverage of the calculus-based material.DESCRIPTION: This combination of physics study guide and workbook focuses on essential problem-solving skills and strategies:Fully solved examples with explanations show you step-by-step how to solve standard university physics problems.Handy charts tabulate the symbols, what they mean, and their SI units.Problem-solving strategies are broken down into steps and illustrated with examples.Answers, hints, intermediate answers, and explanations are provided for every practice exercise.Terms and concepts which are essential to solving physics problems are defined and explained.VOLUME: This volume covers motion, including uniform acceleration, calculus-based motion, vector addition, projectile motion, Newton's laws, center of mass integrals, conservation of energy, collisions, the scalar and vector product, rotation, moment of inertia integrals, satellites, and more. (Vol. 2 covers electricity and magnetism, while Vol. 3 covers waves, fluids, heat, sound, and light. Vol.'s 2-3 will be released in the spring of 2017.)AUTHOR: The author, Dr. Chris McMullen, has over 20 years of experience teaching university physics in California, Oklahoma, Pennsylvania, and Louisiana (and has also taught physics to gifted high school students). Dr. McMullen currently teaches physics at Northwestern State University of Louisiana. He has also published a half-dozen papers on the collider phenomenology of superstring-inspired large extra dimensions. Chris McMullen earned his Ph.D. in particle physics from Oklahoma State University (and his M.S. in physics from California State University, Northridge).Dr. McMullen is well-known for:engaging physics students in challenging ideas through creativitybreaking difficult problems down into manageable stepsproviding clear and convincing explanations to subtle issueshis mastery of physics and strong background in mathematicshelping students become more fluent in practical math skillsMATH REVIEW: Separate chapters cover essential calculus skills (like derivatives and relevant integration techniques) as well as essential algebra, geometry, and trigonometry skills.SOLUTIONS: The back of the book includes a detailed section of hints, intermediate answers, final answers, and explanations to help you solve each problem one step at a time. It's like having a physics tutor in the back of the book. (However, if you would prefer complete solutions, search for ISBN 194169117X.)USES: This study guide workbook can be used to:learn how to solve fundamental problems in physics with calculusfind fully-solved examples of standard physics problemsdevelop fluency in physics via practice exercises that include answers, hints, and explanationsquickly find the most essential physics terms, concepts, and formulasprepare for the

AP physics examreview for standardized exams, such as AP Physics or the fundamentals of the GRE.CALCULATOR: Every problem in this book can be solved without the aid of a calculator. This is handy for students who will take a standardized exam like the GRE Physics, which doesn't allow a calculator. (It's also a handy skill to be able to estimate an answer without relying on a calculator.)

Book Information

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Customer Reviews

to translate physics measures into math for physics, a must have ,many more examples than I've run across before, to give a real use for math learned,to make the math actually mean something!!

Excellent service, super fast delivery.. item arrived as described in good condition. I highly recommend this book to all potential buyers.. it's easy to understand and is filled with step by step examples to follow. It's a must have. I'm 100% satisfied with this purchase!

OK

This is a new "math of physics" study guide series by an outstanding teacher. It is part of a two book, three volume series beginning with motion and moving on to vectors and tensors after the two

remaining volumes are released in Spring of 2017. The two "volume ones" released so far tackle foundation physics with algebra and trig, then calculus, respectively. You can find them here and here:Ã Â Essential Calculus-based Physics Study Guide Workbook: The Laws of Motion (Learn Physics with Calculus Step-by-Step) (Volume 1)Ã Â Essential Trig-based Physics Study Guide Workbook: The Laws of Motion (Learn Physics Step-by-Step) (Volume 1).The publisher also advertises a more complete solutions manual, but the ISBN is dead at this writing, if you're the author or publisher, comment on this review with the correct link (chide here: PLEASE publishers, don't tell shoppers to "search this isbn" -- give a LINK!). Even without the solutions guide (which I haven't seen) the format of these two volumes is OUTSTANDING, whether you are studying for the GRE or a less advanced exam. I'm a test instructor at preptorial.org (we design free test guides for all exams) and we'll be using this series extensively in our classes going forward.The format is more sophisticated, but just as helpful, as a "for dummies" layout, with examples, exercises, diagrams, call outs, GREAT explanations, and even hints at the back of the book. I'm not sure what the solutions guide will look like, but the answers in the back are already fine, with "levels" of hint, explanation, then solution. This is a GREAT way to learn as it sticks with you by giving a combination of a problem, visual, exercise, steps, solution and explanation in words that is more intuitive than just a bunch of angles (although the angles are certainly there!). Highly recommended, eagerly look forward to the rest of the series and the solution guides.Tip: search under the author's name (Chris McMullen), as he's authored some other outstanding guides on the fourth dimension and other topics. You can see by the tone of these volumes that he loves these topics AND teaching, they keep you turning the page on an admittedly dry and difficult subject!

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