

Physics Special Relativity Test Answers

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Special Relativity Time Dilation Practice Problem ~~Special Relativity: Crash Course Physics #42 How we know that Einstein's General Relativity can't be quite right~~

WSU: Special Relativity with Brian Greene **Want to study physics? Read these 10 books** ~~STUDY WITH ME | Special Relativity~~ Special Relativity simplified using no math. Einstein thought experiments

~~General Relativity Explained simply \u0026amp; visually~~ Special Relativity | Lecture 1 ~~General Relativity Explained in 7 Levels of Difficulty~~

Einstein's General Theory of Relativity | Lecture 1 **Simple Relativity - Understanding Einstein's Special Theory of Relativity** Neil deGrasse Tyson Explains The Weirdness of Quantum Physics The REAL source of Gravity might SURPRISE you... How To Solve Amazon's Hanging Cable Interview Question **WHY IS GENERAL RELATIVITY AND QUANTUM MECHANICS INCOMPATIBLE?** The Nature of Space and Time | Brian Greene **Until the End of Time | Brian Greene | Talks at Google** What is the difference between Special Relativity and General Relativity? **Michio Kaku on The God Equation | Closer To Truth Chats** Michio Kaku: 3 mind-blowing predictions about the future | Big Think *General Relativity Lecture 1 Physics - Special Relativity (34 of 43) Relativistic Sample Problem - Length MCQ based upon theory of relativity part-1* ~~Special Relativity and the Twin Paradox~~ WSU: Space, Time, and Einstein with Brian Greene *Theory of relativity explained in 7 mins* *Modern Physics Questions and Answers - Trivia Online MCQs - Practice College Physics Exam Test Prep* *Einstein and the clock - an intro to special relativity* *Brian Greene Explains That Whole General Relativity Thing* *Physics Special Relativity Test Answers*

An astronaut takes a long space journey at close to light speed. The astronaut's twin sister remained on Earth. On a return to Earth, what is the astronaut's age compared to her earthbound twin? A ...

Special relativity test questions

Not only does Scott present exquisitely detailed solutions to Schutz's exercises, he also proposes a large number of his own problems to further test the ... *First Course in General Relativity* ...

A Student's Manual for A First Course in General Relativity

Yes, and you're doing it right now — hurtling into the future at the impressive rate of one second per second. You're pretty much always moving through time at the same speed, whether you're watching ...

Is time travel possible?

(Inside Science) -- Just six years ago, scientists with the Laser Interferometer Gravitational-Wave Observatory, or LIGO, in Louisiana and Washington measured a unique undulating signal when the ...

Tests of General Relativity with Gravitational Waves Can Go Awry

either to accompany a course in gravitational physics, or for other studies of gravitation in the frame of general relativity with a special focus on possible and actually performed tests, their ...

Theory and Experiment in Gravitational Physics

You could look at immortality as a very big puzzle. I am interested in it because my grandparents suffer from heart disease. I want to help them and I want to help other kids so they don't have to ...

'I'm 11, I Have a Physics Degree And Want To Make Humans Immortal'

Albert Einstein's theory of special relativity explains how space ... much the mass of an object curves space-time. Scientists test relativity by observing objects in space and seeing if their ...

Theory of Relativity

one of the main attractions was the possibility to do new and more stringent tests of general relativity," says Riccardo Buscicchio, a PhD student at the School of Physics and Astronomy ...

When testing Einstein's theory of general relativity, small modeling errors add up fast

Half the fun of getting vintage test equipment is getting to open ... According to the video, you can simplify special relativity to saying that time slows down if you go fast — that is known ...

Cesium Clock Teardown, Or Quantum Physics Playground

Evan Erickson is one of five U.S. teens to qualify for the annual International Physics Olympiad, the biggest secondary school physics competition in the world.

Minnesota teen math whiz makes U.S. physics team, will compete for world title

The letter's recipient, Polish-American physicist Ludwik Silberstein, wrote one of the first English-language textbooks on relativity—a theory that encompasses both the special theory of ... a ...

News at a glance

Conscious that this article does not become a science lecture, I won't go into the details but suffice to say the theory of relativity has completely transformed theoretical physics and ...

25 Best Quotes from Albert Einstein

The list includes four faculty members from MIT: Riccardo Comin of the Department of Physics; Netta Engelhardt of the Department ... "We now rely on special algorithms that can perform computationally ..."

Four MIT faculty members receive 2021 US Department of Energy early career awards

Short answer ... theory of special relativity in 1905. Along with his later expansion, the theory of general relativity, it has become one of the foundational tenets of modern physics.

Is time travel possible?

Each new measurement helps physicists test general relativity, and if they show deviations that point to physics that go beyond ... universe's speed limit in violation of special relativity.

College Physics Multiple Choice Questions and Answers (MCQs) PDF: Quiz & Practice Tests with Answer Key (College Physics Quick Study Guide & Terminology Notes to Review) includes revision guide for problem solving with 600 solved MCQs. "College Physics MCQ" book with answers PDF covers basic concepts, theory and analytical assessment tests. "College Physics Quiz" PDF book helps to practice test questions from exam prep notes. College physics quick study guide provides 600 verbal, quantitative, and analytical reasoning past question papers, solved MCQs. College Physics Multiple Choice Questions and Answers PDF download, a book to practice quiz questions and answers on chapters: Applied physics, motion and force, work and energy, atomic spectra, circular motion, current electricity, electromagnetic induction, electromagnetism, electronics, electrostatic, fluid dynamics, measurements in physics, modern physics, vector and equilibrium tests for college and university revision guide. College Physics Quiz Questions and Answers PDF download with free sample book covers beginner's questions, exam's workbook, and certification exam prep with answer key. College physics MCQs book PDF, a quick study guide from textbook study notes covers exam practice quiz questions. College Physics practice tests PDF covers problem solving in self-assessment workbook from physics textbook chapters as: Chapter 1: Motion and Force MCQs Chapter 2: Work and Energy MCQs Chapter 3: Atomic Spectra MCQs Chapter 4: Circular Motion MCQs Chapter 5: Current and Electricity MCQs Chapter 6: Electromagnetic Induction MCQs Chapter 7: Electromagnetism MCQs Chapter 8: Electronics MCQs Chapter 9: Electrostatic MCQs Chapter 10: Fluid Dynamics MCQs Chapter 11: Measurements in Physics MCQs Chapter 12: Modern Physics MCQs Chapter 13: Vector and Equilibrium MCQs Solve "Motion and Force MCQ" PDF book with answers, chapter 1 to practice test questions: Newton's laws of motion, projectile motion, uniformly accelerated motion, acceleration, displacement, elastic and inelastic collisions, fluid flow, momentum, physics equations, rocket propulsion, velocity formula, and velocity time graph. Solve "Work and Energy MCQ" PDF book with answers, chapter 2 to practice test questions: Energy, conservation of energy, non-conventional energy sources, work done by a constant force, work done formula, physics problems, and power. Solve "Atomic Spectra MCQ" PDF book with answers, chapter 3 to practice test questions: Bohr's atomic model, electromagnetic spectrum, inner shell transitions, and laser. Solve "Circular Motion MCQ" PDF book with answers, chapter 4 to practice test questions: Angular velocity, linear velocity, angular acceleration, angular displacement, law of conservation of angular momentum, artificial gravity, artificial satellites, centripetal force (CF), communication satellites, geostationary orbits, moment of inertia, orbital velocity, angular momentum, rotational kinetic energy, and weightlessness in satellites. Solve "Current and Electricity MCQ" PDF book with answers, chapter 5 to practice test questions: Current and electricity, current source, electric current, carbon resistances color code, EMF and potential difference, Kirchhoff's law, ohms law, power dissipation, resistance and resistivity, and Wheatstone bridge. Solve "Electromagnetic Induction MCQ" PDF book with answers, chapter 6 to practice test questions: Electromagnetic induction, AC and DC generator, EMF, induced current and EMF, induction, and transformers. Solve "Electromagnetism MCQ" PDF book with answers, chapter 7 to practice test questions: Electromagnetism, Ampere's law, cathode ray oscilloscope, e/m experiment, force on moving charge, galvanometer, magnetic field, and magnetic flux density. Solve "Electronics MCQ" PDF book with answers, chapter 8 to practice test questions: Electronics, logic gates, operational amplifier (OA), PN junction, rectification, and transistor. Solve "Electrostatic MCQ" PDF book with answers, chapter 9 to practice test questions: Electrostatics, electric field lines, electric flux, electric potential, capacitor, Coulomb's law, Gauss law, electric and gravitational forces, electron volt, and Millikan experiment. Solve "Fluid Dynamics MCQ" PDF book with answers, chapter 10 to practice test questions: Applications of Bernoulli's equation, Bernoulli's equation, equation of continuity, fluid flow, terminal velocity, viscosity of liquids, viscous drag, and Stoke's law. Solve "Measurements in Physics MCQ" PDF book with answers, chapter 11 to practice test questions: Errors in measurements, physical quantities, international system of units, introduction to physics, metric system conversions, physical quantities, SI units, significant figures calculations, and uncertainties in physics. Solve "Modern Physics MCQ" PDF book with answers, chapter 12 to practice test questions: Modern physics, and special theory of relativity. Solve "Vector and Equilibrium MCQ" PDF book with answers, chapter 13 to practice test questions: Vectors, vector concepts, vector magnitude, cross product of two vectors, vector addition by rectangular components, product of two vectors, equilibrium of forces, equilibrium of torque, product of two vectors, solving physics problem, and torque.

"Engineering Physics Multiple Choice Questions and Answers (MCQs): Quizzes & Practice Tests with Answer Key" provides mock tests for competitive exams preparation. This book can help to learn and practice "Engineering Physics" quizzes as a quick study guide for placement test preparation. "Engineering Physics MCQs" helps with theoretical, conceptual, and analytical study for self-assessment, career tests. Engineering Physics Multiple Choice Questions and Answers pdf is a revision guide with a collection of trivia questions to fun quiz questions and answers pdf on topics: Alternating fields and currents, astronomical data, capacitors and capacitance, circuit theory, conservation of energy, coulomb's law, current produced magnetic field, electric potential energy, equilibrium, indeterminate structures, finding electric field, first law of thermodynamics, fluid statics and dynamics, friction, drag and centripetal force, fundamental constants of physics, geometric optics, inductance, kinetic energy, longitudinal waves, magnetic force, models of magnetism, newton's law of motion, Newtonian gravitation, ohm's law, optical diffraction, optical interference, physics and measurement, properties of common elements, rotational motion, second law of thermodynamics, simple harmonic motion, special relativity, straight line motion, transverse waves, two and three dimensional motion, vector quantities, work-kinetic energy theorem to enhance teaching and learning. Engineering Physics Quiz Questions and Answers pdf also covers the syllabus of many competitive papers for admission exams of different universities from physics textbooks on chapters: Alternating Fields and Currents Multiple Choice Questions: 27 MCQs. Astronomical Data Multiple Choice Questions: 150 MCQs. Capacitors and Capacitance Multiple Choice Questions: 17 MCQs. Circuit Theory Multiple Choice Questions: 14 MCQs. Conservation of Energy Multiple Choice Questions: 40 MCQs. Coulomb's Law Multiple Choice Questions: 13 MCQs. Current Produced Magnetic Field Multiple Choice Questions: 4 MCQs. Electric Potential Energy Multiple Choice Questions: 10 MCQs. Equilibrium, Indeterminate Structures Multiple Choice Questions: 51 MCQs. Finding Electric Field Multiple Choice Questions: 13 MCQs. First Law of Thermodynamics Multiple Choice Questions: 138 MCQs. Fluid Statics and Dynamics Multiple Choice Questions: 57 MCQs. Friction, Drag and Centripetal Force Multiple Choice

Questions: 13 MCQs. Fundamental Constants of Physics Multiple Choice Questions: 45 MCQs. Geometric Optics Multiple Choice Questions: 19 MCQs. Inductance Multiple Choice Questions: 4 MCQs. Kinetic Energy Multiple Choice Questions: 41 MCQs. Longitudinal Waves Multiple Choice Questions: 21 MCQs. Magnetic Force Multiple Choice Questions: 26 MCQs. Models of Magnetism Multiple Choice Questions: 46 MCQs. Newton's Law of Motion Multiple Choice Questions: 22 MCQs. Newtonian Gravitation Multiple Choice Questions: 92 MCQs. Ohm's Law Multiple Choice Questions: 36 MCQs. Optical Diffraction Multiple Choice Questions: 19 MCQs. Optical Interference Multiple Choice Questions: 9 MCQs. Physics and Measurement Multiple Choice Questions: 111 MCQs. Properties of Common Elements Multiple Choice Questions: 94 MCQs. Rotational Motion Multiple Choice Questions: 95 MCQs. Second Law of Thermodynamics Multiple Choice Questions: 10 MCQs. Simple Harmonic Motion Multiple Choice Questions: 35 MCQs. Special Relativity Multiple Choice Questions: 17 MCQs. Straight Line Motion Multiple Choice Questions: 14 MCQs. Transverse Waves Multiple Choice Questions: 47 MCQs. Two and Three Dimensional Motion Multiple Choice Questions: 12 MCQs. Vector Quantities Multiple Choice Questions: 21 MCQs. Work-Kinetic Energy Theorem Multiple Choice Questions: 17 MCQs

The chapter "Alternating Fields and Currents MCQs" covers topics of alternating current, damped oscillations in an RLS circuit, electrical-mechanical analog, forced and free oscillations, LC oscillations, phase relations for alternating currents and voltages, power in alternating current circuits, transformers. The chapter "Astronomical Data MCQs" covers topics of aphelion, distance from earth, eccentricity of orbit, equatorial diameter of planets, escape velocity of planets, gravitational acceleration of planets, inclination of orbit to earth's orbit, inclination of planet axis to orbit, mean distance from sun to planets, moons of planets, orbital speed of planets, perihelion, period of rotation of planets, planet densities, planets masses, sun, earth and moon. The chapter "Capacitors and Capacitance MCQs" covers topics of capacitor in parallel and in series, capacitor with dielectric, charging a capacitor, cylindrical capacitor, parallel plate capacitor. The chapter "Circuit Theory MCQs" covers topics of loop and junction rule, power, series and parallel resistances, single loop circuits, work, energy and EMF. The chapter "Conservation of Energy MCQs" covers topics of center of mass and momentum, collision and impulse, collisions in one dimension, conservation of linear momentum, conservation of mechanical energy, linear momentum and Newton's second law, momentum and kinetic energy in collisions, Newton's second law for a system of particles, path independence of conservative forces, work and potential energy. The chapter "Coulomb's Law MCQs" covers topics of charge is conserved, charge is quantized, conductors and insulators, and electric charge. The chapter "Current Produced Magnetic Field MCQs" covers topics of ampere's law, and law of Biot-Savart. The chapter "Electric Potential Energy MCQs" covers topics of introduction to electric potential energy, electric potential, and equipotential surfaces. The chapter "Equilibrium, Indeterminate Structures MCQs" covers topics of center of gravity, density of selected materials of engineering interest, elasticity, equilibrium, indeterminate structures, ultimate and yield strength of selected materials of engineering interest, and Young's modulus of selected materials of engineering interest. The chapter "Finding Electric Field MCQs" covers topics of electric field, electric field due to continuous charge distribution, electric field lines, flux, and Gauss law. The chapter "First Law of Thermodynamics MCQs" covers topics of absorption of heat by solids and liquids, Celsius and Fahrenheit scales, coefficients of thermal expansion, first law of thermodynamics, heat of fusion of common substances, heat of transformation, heat of vaporization of common substances, introduction to thermodynamics, molar specific heat, substance specific heat in calories, temperature, temperature and heat, thermal conductivity, thermal expansion, and zeroth law of thermodynamics. The chapter "Fluid Statics and Dynamics MCQs" covers topics of Archimedes principle, Bernoulli's equation, density, density of air, density of water, equation of continuity, fluid, measuring pressure, pascal's principle, and pressure. The chapter "Friction, Drag and Centripetal Force MCQs" covers topics of drag force, friction, and terminal speed. The chapter "Fundamental Constants of Physics MCQs" covers topics of Bohr magneton, Boltzmann constant, elementary charge, gravitational constant, magnetic moment, molar volume of ideal gas, permittivity and permeability constant, Planck constant, speed of light, Stefan-Boltzman constant, unified atomic mass unit, and universal gas constant. The chapter "Geometric Optics MCQs" covers topics of optical instruments, plane mirrors, spherical mirror, and types of images. The chapter "Inductance MCQs" covers topics of faraday's law of induction, and Lenz's law. The chapter "Kinetic Energy MCQs" covers topics of Avogadro's number, degree of freedom, energy, ideal gases, kinetic energy, molar specific heat of ideal gases, power, pressure, temperature and RMS speed, transnational kinetic energy, and work. The chapter "Longitudinal Waves MCQs" covers topics of Doppler effect, shock wave, sound waves, and speed of sound. The chapter "Magnetic Force MCQs" covers topics of charged particle circulating in a magnetic field, hall effect, magnetic dipole moment, magnetic field, magnetic field lines, magnetic force on current carrying wire, some appropriate magnetic fields, and torque on current carrying coil. The chapter "Models of Magnetism MCQs" covers topics of diamagnetism, earth's magnetic field, ferromagnetism, gauss's law for magnetic fields, indexes of refractions, Maxwell's extension of ampere's law, Maxwell's rainbow, orbital magnetic dipole moment, paramagnetism, polarization, reflection and refraction, and spin magnetic dipole moment. The chapter "Newton's Law of Motion MCQs" covers topics of newton's first law, newton's second law, Newtonian mechanics, normal force, tension. The chapter "Newtonian Gravitation MCQs" covers topics of escape speed, gravitation near earth's surface, gravitational system body masses, gravitational system body radii, Kepler's law of periods for solar system, newton's law of gravitation, planet and satellites: Kepler's law, satellites: orbits and energy, and semi major axis 'a' of planets. The chapter "Ohm's Law MCQs" covers topics of current density, direction of current, electric current, electrical properties of copper and silicon, Ohm's law, resistance and resistivity, resistivity of typical insulators, resistivity of typical metals, resistivity of typical semiconductors, and superconductors. The chapter "Optical Diffraction MCQs" covers topics of circular aperture diffraction, diffraction, diffraction by a single slit, gratings: dispersion and resolving power, and x-ray diffraction. The chapter "Optical Interference MCQs" covers topics of coherence, light as a wave, and Michelson interferometer. The chapter "Physics and Measurement MCQs" covers topics of applied physics introduction, changing units, international system of units, length and time, mass, physics history, SI derived units, SI supplementary units, and SI temperature derived units. The chapter "Properties of Common Elements MCQs" covers topics of aluminum, antimony, argon, atomic number of common elements, boiling points, boron, calcium, copper, gallium, germanium, gold, hydrogen, melting points, and zinc. The chapter "Rotational Motion MCQs" covers topics of angular momentum, angular momentum of a rigid body, conservation of angular momentum, forces of rolling, kinetic energy of rotation, newton's second law in angular form, newton's second law of rotation, precession of a gyroscope, relating linear and angular variables, relationship with constant angular acceleration, rolling as translation and rotation combined, rotational inertia of different objects, rotational variables, torque, work and rotational kinetic energy, and yo-yo. The chapter "Second Law of Thermodynamics MCQs" covers topics of entropy in real world, introduction to second law of thermodynamics, refrigerators, and Stirling engine. The chapter "Simple Harmonic Motion MCQs" covers topics of angular simple harmonic oscillator, damped simple harmonic motion, energy in simple harmonic oscillators, forced oscillations and resonance, harmonic motion, pendulums, and uniform circular motion. The chapter "Special Relativity MCQs" covers topics of mass energy, postulates, relativity of light, and time dilation. The chapter "Straight Line Motion MCQs" covers topics of acceleration, average velocity, instantaneous velocity, and motion. The chapter "Transverse Waves MCQs" covers topics of interference of waves, phasors, speed of traveling wave, standing waves, transverse and longitudinal waves, types of waves, wave power, wave speed on a stretched string, wavelength, and frequency. The chapter "Two and Three Dimensional Motion MCQs" covers topics of projectile motion, projectile range, and uniform circular motion. The chapter "Vector Quantities MCQs" covers topics of components of vector, multiplying vectors, unit vector, vectors, and scalars. The chapter "Work-Kinetic Energy Theorem MCQs" covers topics of energy, kinetic energy, power, and work.

Essential strategies, practice, and review to ace the SAT Subject Test Physics Getting into a top college has never been more difficult.

Students need to distinguish themselves from the crowd, and scoring well on a SAT Subject Test gives students a competitive edge. Kaplan's SAT Subject Test: Physics is the most up-to-date guide on the market with complete coverage of both the content review and strategies students need for success on test day. Kaplan's SAT Subject Test: Physics features: * A full-length diagnostic test * Full-length practice tests * Focused chapter summaries, highlights, and quizzes * Detailed answer explanations * Proven score-raising strategies * End-of-chapter quizzes Kaplan is serious about raising students' scores—we guarantee students will get a higher score.

In 1865 James Clerk Maxwell (1831 - 1879) published this work, "A Dynamical Theory of the Electromagnetic Field" demonstrating that electric and magnetic fields travel through space as waves moving at the speed of light. He proposed that light is an undulation in the same medium that is the cause of electric and magnetic phenomena. The unification of light and electrical phenomena led him to predict the existence of radio waves. Maxwell is also regarded as the founding scientist of the modern field of electrical engineering. His discoveries helped usher in the era of modern physics, laying the foundation for such fields as special relativity and quantum mechanics. Many physicists regard Maxwell as the 19th-century scientist having the greatest influence on 20th-century physics. His contributions to physics are considered by many to be of the same magnitude as the ones of Isaac Newton and Albert Einstein. In this original treatise Maxwell introduces the best of his mind in seven parts, to include: Part i. introductory. Part ii. on electromagnetic induction. Part iii. general equations of the electromagnetic field. Part iv. mechanical actions in the field. Part v. theory of condensers. Part vi. electromagnetic theory of light. Part vii. calculation of the coefficients of electromagnetic induction

Barron's SAT Subject Test Physics is updated to reflect the current test and features three full-length practice tests along with detailed content review and expert tips to help students improve their score. This edition includes: One diagnostic test to determine strengths and weaknesses Three complete SAT Subject Tests in Physics, which reflect the most recent actual tests in length, subject matter, and degree of difficulty Answers and explanations for all questions Self-assessment guides after each test so students can measure their progress Extensive subject review covering all topics on the test, including mechanics, electricity and magnetism, waves and optics, thermodynamics, and more. Online Practice Test: Students also get access to one brand new, full-length online practice test with all questions answered and explained. Unique features include a "What's the Trick?" approach to solving problems quickly and effectively. Additional tips, called out with "If You See..." are included within the chapters to give test takers critical insight into difficult concepts, and QR codes are provided at "Key Concept" areas link to short videos to enhance instruction. The authors also provide general examination strategies and a detailed appendix with equations, physical constants, and a basic math review.

Provides an in-depth review of concepts covered on the exam, test-taking strategies, a diagnostic tool, and three full-length practice tests with detailed answer explanations.

Expert guidance on the Physics exam Many colleges and universities require you to take one or more SAT II Subject Tests to demonstrate your mastery of specific high school subjects. McGraw-Hill's SAT Subject Test: Physics is written by experts in the field, and gives you the guidance you need perform at your best. This book includes: 30 top tips to remember on test day Glossary of tested physics terms Everything you need to know about the SAT Subject Test in Physics: testing requirements, when to register, how scores are reported, and more Diagnostic test to pinpoint strengths and weaknesses Sample exams and problems designed to match the real test in content and level of difficulty Two full-length practice tests Test-taking tips and strategies

SAT Subject Test Physics Prep, 17th Edition provides students with tons of sample problems and drills; thorough reviews of work, energy and power, linear momentum, rotational motion, electric potential and capacitance, and electromagnetic induction; planning and organization tips; 2 full-length practice tests; and much more. This 17th edition includes a new quick-look Study Guide, expanded answer explanations, and access to a new Online Student Tools section with additional college admissions help and info.

Barron's Let's Review Regents: Physics gives students the step-by-step review and practice they need to prepare for the Regents exam. This updated edition is an ideal companion to high school textbooks and covers all Physics topics prescribed by the New York State Board of Regents. This edition includes one recently-administered Physics Regents Exam and provides in-depth review of all topics on the test, including: Motion in one dimension Forces and Newton's laws Vector quantities and their applications Circular motion and gravitation Momentum and its conservation Work and energy Properties of matter Static electricity, electric current and circuits Magnetism and electromagnetism Waves and sound Light and geometric optics Solid-state physics Modern physics from Planck's hypothesis to Einstein's special theory of relativity Nuclear energy Looking for additional review? Check out Barron's Physics Power Pack two-volume set, which includes Regents Exams and Answers: Physics in addition to Let's Review Regents: Physics.

This book is written for high school and college students learning about special relativity for the first time. It will appeal to the reader who has a healthy level of enthusiasm for understanding how and why the various results of special relativity come about. All of the standard introductory topics in special relativity are covered: historical motivation, loss of simultaneity, time dilation, length contraction, velocity addition, Lorentz transformations, Minkowski diagrams, causality, Doppler effect, energy/momentum, collisions/decays, force, and 4-vectors. Additionally, the last chapter provides a brief introduction to the basic ideas of general relativity, including the equivalence principle, gravitational time dilation, and accelerating reference frames. The book features more than 100 worked-out problems in the form of examples in the text and solved problems at the end of each chapter. These problems, along with the discussions in the text, will be a valuable resource in any course on special relativity. The numerous examples also make this book ideal for self-study. Very little physics background is assumed (essentially none in the first half of the book). An intriguing aspect of special relativity is that it is challenging due to its inherent strangeness, as opposed to a heavy set of physics prerequisites. Likewise for the math prerequisite: calculus is used on a few occasions, but it is not essential to the overall flow of the book.

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