

ap calculus 2.1

ap calculus 2.1 is an essential topic in the Advanced Placement Calculus curriculum, focusing on the intricacies of integrals and their applications. This section typically covers the Fundamental Theorem of Calculus, techniques of integration, and the interpretation of definite integrals. Mastering these concepts is crucial for students aiming to excel in both the AP exam and future mathematics courses. This article will delve into the critical components of AP Calculus 2.1, providing a comprehensive overview that includes definitions, techniques, and practical applications, along with practice problems to solidify understanding.

Following the exploration of these topics, the article will also include a FAQ section to address common inquiries related to AP Calculus 2.1.

- Understanding the Fundamental Theorem of Calculus
- Techniques of Integration
- Applications of Definite Integrals
- Practice Problems and Solutions
- Common Challenges in AP Calculus 2.1

Understanding the Fundamental Theorem of Calculus

The Fundamental Theorem of Calculus establishes a profound connection between differentiation and integration, serving as a cornerstone of calculus. It consists of two parts: the first part states that if a function is continuous on an interval, the integral of that function can be computed using its antiderivative. The second part asserts that the derivative of the integral of a function is the original function itself.

Part One: The Integral as an Antiderivative

The first part of the theorem emphasizes that if f is a continuous function on the interval $[a, b]$, and F is an antiderivative of f (meaning that $F' = f$), then:

$$\int_a^b f(x) \, dx = F(b) - F(a)$$

This equation illustrates how one can compute the definite integral of a function by evaluating its antiderivative at the endpoints of the interval. This principle not only simplifies the computation of areas under curves but also deepens the understanding of the relationship between integration and the accumulation of quantities.

Part Two: Derivative of the Integral

The second part of the Fundamental Theorem states that if f is continuous on an interval, then the function defined by the integral of f from a constant a to x is differentiable, and its derivative is the original function:

$$\frac{d}{dx} \int_a^x f(t) \, dt = f(x)$$

This concept is essential for understanding how integration can be used to analyze functions and their rates of change, providing a powerful tool for solving various problems in calculus.

Techniques of Integration

In AP Calculus 2.1, students must become proficient in various techniques of integration to tackle more complex integrals. These techniques include substitution, integration by parts, and the use of partial fractions.

Substitution Method

The substitution method is particularly useful when dealing with composite functions. This technique involves changing the variable of integration to simplify the integral. For example, if you have an integral of the form:

$$\int f(g(x)) g'(x) \, dx$$

You can set $u = g(x)$, which transforms the integral into:

$$\int f(u) \, du$$

This simplification often makes it easier to find the integral of the function.

Integration by Parts

Integration by parts is based on the product rule for differentiation and is useful for integrals involving the product of functions. The formula is:

$$\int u \, dv = uv - \int v \, du$$

Here, u and dv are chosen strategically to simplify the integral. This technique often requires practice and familiarity with different types of functions to select appropriate parts.

Partial Fraction Decomposition

This technique is used primarily for integrating rational functions. The goal is to express a complex rational function as a sum of simpler fractions. For example, if you have:

$$\frac{P(x)}{Q(x)}$$

where P and Q are polynomials, you can decompose it into simpler fractions that can be integrated individually. This method is particularly effective for integrals that initially seem daunting.

Applications of Definite Integrals

Definite integrals have numerous applications in various fields, including physics, engineering, and economics. They are often used to calculate areas, volumes, and other quantities that can be expressed as the accumulation of infinitesimal parts.

Calculating Areas Under Curves

One of the most common applications of definite integrals is calculating the area under a curve. For a function $f(x)$, the area between the curve and the x-axis from a to b can be found using:

$$A = \int_a^b f(x) \, dx$$

This application is foundational in understanding how to use integrals in practical scenarios, allowing students to visualize and quantify areas in a meaningful way.

Volume of Solids of Revolution

Another significant application is calculating the volume of solids of revolution, which can be approached using the disk and washer methods. For instance, when a region bounded by a function $f(x)$ is revolved around the x-axis, the volume V can be computed as:

$$V = \pi \int_a^b [f(x)]^2 \, dx$$

This technique is crucial for understanding three-dimensional shapes and their properties, linking calculus to geometric applications.

Practice Problems and Solutions

Practicing problems is essential for mastering AP Calculus 2.1. Below are a few practice problems along with their solutions to help reinforce the concepts discussed.

1. Evaluate the integral: $\int (3x^2 - 4x + 1) \, dx$.

Solution: $F(x) = x^3 - 2x^2 + x + C$.

2. Use integration by parts to solve: $\int x e^x \, dx$.

Solution: $e^x (x - 1) + C$.

3. Find the area under the curve $y = x^2$ from $x = 1$ to $x = 3$.

Solution: Area = $\int_1^3 x^2 \, dx = \frac{26}{3}$ square units.

Common Challenges in AP Calculus 2.1

Students often encounter difficulties when learning AP Calculus 2.1. Understanding the Fundamental Theorem of Calculus, mastering integration techniques, and applying them to real-world problems can be challenging. Here are some common challenges:

- Difficulty in identifying the appropriate integration technique.
- Misunderstanding the application of the Fundamental Theorem of Calculus.
- Struggles with setting up integrals for area and volume problems.

To overcome these challenges, students should practice regularly, seek help from teachers or peers, and utilize online resources for additional support.

Q: What is the Fundamental Theorem of Calculus?

A: The Fundamental Theorem of Calculus links the concept of differentiation with integration, stating that if a function is continuous, the integral of that function over an interval can be computed using its antiderivative.

Q: How do I choose between integration techniques?

A: Choosing an integration technique depends on the form of the function you are integrating. Look for patterns like products of functions (use integration by parts), composite functions (use substitution), or rational functions (use partial fractions).

Q: Can definite integrals be negative?

A: Yes, definite integrals can be negative if the function lies below the x-axis over the interval of integration. The value of the integral represents the net area, taking into account the signs of the areas.

Q: What are some common applications of definite integrals?

A: Common applications of definite integrals include calculating areas under curves, volumes of solids of revolution, and solving problems in physics like work and displacement.

Q: How can I improve my integration skills for AP Calculus 2.1?

A: To improve integration skills, practice a wide variety of problems, study examples in textbooks, and utilize online resources or tutoring for additional explanations and practice.

Q: What is the difference between indefinite and definite integrals?

A: Indefinite integrals represent a family of functions (antiderivatives) and include a constant of integration, while definite integrals compute the net area between the curve and the x-axis over a specified interval, yielding a numerical value.

Q: Are there any resources for practicing AP Calculus 2.1 problems?

A: Yes, many resources are available, including AP Calculus review books, online practice exams, and educational websites that offer interactive problem-solving tools and video tutorials.

Q: What should I focus on when studying for the AP Calculus exam?

A: Focus on understanding core concepts, mastering integration techniques, practicing problems of varying difficulty, and familiarizing yourself with the exam format and types of questions.

Q: How important is the Fundamental Theorem of Calculus for the AP exam?

A: The Fundamental Theorem of Calculus is crucial for the AP exam, as it underpins many topics in calculus and is often tested directly through problems involving integration and differentiation.

[Ap Calculus 21](#)

Find other PDF articles:

<http://www.speargrouppllc.com/gacor1-28/pdf?docid=ELV67-9375&title=what-is-my-enneagram-tritype.pdf>

ap calculus 21: Cracking the AP Calculus AB Exam 2020, Premium Edition The Princeton Review, 2019-10-08 Make sure you're studying with the most up-to-date prep materials! Look for the newest edition of this title, Princeton Review AP Calculus AB Premium Prep, 2021 (ISBN: 9780525569442, on-sale August 2020). Publisher's Note: Products purchased from third-party sellers are not guaranteed by the publisher for quality or authenticity, and may not include access to online tests or materials included with the original product.

ap calculus 21: Princeton Review AP Calculus AB Prep 2021 The Princeton Review, 2020-08 Make sure you're studying with the most up-to-date prep materials! Look for the newest edition of this title, The Princeton Review AP Calculus AB Prep, 2022 (ISBN: 9780525570554, on-sale August 2021). Publisher's Note: Products purchased from third-party sellers are not guaranteed by the publisher for quality or authenticity, and may not include access to online tests or materials included with the original product.

ap calculus 21: Cracking the AP Calculus AB Exam 2018, Premium Edition Princeton Review, 2017-08 Provides a comprehensive review of exam topics, test-taking tips, and six full-length practice tests with detailed answer explanations.

ap calculus 21: My Max Score AP Calculus AB/BC Carolyn Wheeler, 2011 Provides test-taking tips and strategies, reviews topics on the test, and includes a full-length practice exam with answers and explanations.

ap calculus 21: Cracking the AP Calculus AB Exam, 2018 Edition Princeton Review, 2017-09-12 EVERYTHING YOU NEED TO SCORE A PERFECT 5. Ace the AP Calculus AB Exam with this comprehensive study guide—including 3 full-length practice tests, thorough content reviews, access to our AP Connect online portal, and targeted strategies for every question type. This eBook edition has been optimized for on-screen learning with cross-linked questions, answers, and explanations. Written by the experts at The Princeton Review, Cracking the AP Calculus AB Exam arms you to take on the test with: Techniques That Actually Work. • Tried-and-true strategies to help you avoid traps

and beat the test • Tips for pacing yourself and guessing logically • Essential tactics to help you work smarter, not harder Everything You Need to Know to Help Achieve a High Score. • Comprehensive content review for all test topics • Up-to-date information on the 2018 AP Calculus AB Exam • Subjects organized into manageable units • Access to AP Connect, our online portal for helpful pre-college information and exam updates Practice that Takes You to Excellence. • 3 full-length practice tests in the book with detailed answer explanations • Comprehensive drills at the end of each chapter and unit • Handy guide to key calculus formulas, plus bonus tips online for optimizing your TI-84 calculator

ap calculus 21: Cracking the AP Calculus AB Exam, 2020 Edition . The Princeton Review, 2019-08-06 Cracking the AP Calculus AB Exam, 2020 Edition, is dedicated to the calculus topics students need to cover to succeed on the AB test, including functions, graphs, limits, derivatives, and integrals. The exam covers all the information students need to succeed on the AB test, including functions, graphs, limits, derivatives, and integrals. The exam covers the material taught in a full-year course, and this edition reflects all the topics covered by the exam, the curriculum structure, and the exam setup and question types.

ap calculus 21: Princeton Review AP Calculus AB Premium Prep 2021 The Princeton Review, 2020-08 The Premium edition of our popular annual study guide that provides all the info students need to succeed on the AP Calculus AB Exam--now with an additional test added for 7 full-length practice tests for maximum scoring success. AP Calculus AB Premium Prep, 2021, previously titled Cracking the AP Calculus AB Exam, Premium Edition, is dedicated to the calculus topics students need to cover to succeed on the AB test, including functions, graphs, limits, derivatives, and integrals. The exam covers the material taught in a full-year course, and this edition reflects all the topics covered by the exam, the curriculum structure, and the exam setup and question types. This Premium edition now includes 7 full-length practice tests (5 in the book and 2 online) for the most practice possible.

ap calculus 21: Teaching in the 21st Century Alice Robertson, Barbara Smith, 2002-05-03 The essays in this book argue that the active learning strategies that teachers trained in composition use for their literature courses can be exported to other disciplines to enhance both teacher performance and student learning. The book provides and explains examples of those strategies and illustrates how they have been effectively used in other disciplines.

ap calculus 21: Theorizing STEM Education in the 21st Century Kehdinga George Fomunyam, 2020-02-26 Theorising STEM Education in the 21st Century is a book that captures the essence of Science, Technology, Engineering and Mathematics and the intricacies of STEM education in the contemporary society. It explores STEM as an interdisciplinary field as well as the individual disciplines that make up STEM. This ensures the field of STEM as a whole is theorised. The book provides critical insight on STEM education from Cairo to Cape Town or from America to Indonesia. With a team of authors from universities across the world, the book is a vital contribution to critical scholarship on STEM education in contemporary times.

ap calculus 21: AP Calculus AB Prep Plus 2020 & 2021 Kaplan Test Prep, 2020-02-04 Kaplan's AP Calculus AB Prep Plus 2020 & 2021 is revised to align with the latest exam. This edition features more than 1,000 practice questions in the book and online, complete explanations for every question, and a concise review of high-yield content to quickly build your skills and confidence. Test-like practice comes in 8 full-length exams, 11 pre-chapter quizzes, 11 post-chapter quizzes, and 22 online quizzes. Customizable study plans ensure that you make the most of the study time you have. We're so confident that AP Calculus AB Prep Plus offers the guidance you need that we guarantee it: after studying with our online resources and book, you'll score higher on the exam—or you'll get your money back. To access your online resources, go to [kaptest.com/moreonline](https://www.kaptest.com/moreonline) and follow the directions. You'll need your book handy to complete the process. The College Board has announced that the 2021 exam dates for AP Calculus AB will be May 4, May 24, or June 9, depending on the testing format. (Each school will determine the testing format for their students.) Expert Guidance We know the test—our AP experts make sure our practice questions and study

materials are true to the exam. We know students—every explanation is written to help you learn, and our tips on the exam structure and question formats will help you avoid surprises on Test Day. We invented test prep—Kaplan (kaptest.com) has been helping students for 80 years, and 9 out of 10 Kaplan students get into one or more of their top-choice colleges.

ap calculus 21: AP Calculus BC Prep Plus 2020 & 2021 Kaplan Test Prep, 2020-07-14 Kaplan's AP Calculus BC Prep Plus 2020 & 2021 is revised to align with the latest exam. This edition features more than 1,000 practice questions in the book and online, complete explanations for every question, and a concise review of high-yield content to quickly build your skills and confidence. Test-like practice comes in 6 full-length exams, 15 pre-chapter quizzes, 15 post-chapter quizzes, and 22 online quizzes. Customizable study plans ensure that you make the most of the study time you have. We're so confident that AP Calculus AB Prep Plus offers the guidance you need that we guarantee it: after studying with our online resources and book, you'll score higher on the exam—or you'll get your money back. To access your online resources, go to [kaptest.com/moreonline](https://www.kaptest.com/moreonline) and follow the directions. You'll need your book handy to complete the process. The College Board has announced that the 2021 exam dates for AP Calculus AB will be May 4, May 24, or June 9, depending on the testing format. (Each school will determine the testing format for their students.) Expert Guidance We know the test—our AP experts make sure our practice questions and study materials are true to the exam. We know students—every explanation is written to help you learn, and our tips on the exam structure and question formats will help you avoid surprises on Test Day. We invented test prep—Kaplan (kaptest.com) has been helping students for 80 years, and 9 out of 10 Kaplan students get into one or more of their top-choice colleges.

ap calculus 21: 550 AP Calculus AB & BC Practice Questions The Princeton Review, 2013-12-10 THE PRINCETON REVIEW GETS RESULTS. Get extra preparation for an excellent AP Calculus AB & BC score with 550 extra practice questions and answers. Practice makes perfect—and The Princeton Review's 550 AP Calculus AB & BC Practice Questions gives you everything you need to work your way to the top. Inside, you'll find tips and strategies for tackling and overcoming challenging questions, plus all the practice you need to get the score you want. Inside The Book: All the Practice and Strategies You Need • 2 diagnostic exams (one each for AB and BC) to help you identify areas of improvement • 2 comprehensive practice tests (one each for AB and BC) • Over 300 additional practice questions • Step-by-step techniques for both multiple-choice and free-response questions • Practice drills for each tested topic: Limits, Functions and Graphs, Derivatives, Integration, Polynomial Approximations, and Series • Answer keys and detailed explanations for each drill and test question • Engaging guidance to help you critically assess your progress

ap calculus 21: Counseling 21st Century Students for Optimal College and Career Readiness Corine Fitzpatrick, Kathleen Costantini, 2022-02-17 This second edition presents an updated action-based curriculum for high school counselors that will meet the needs of 21st century students, helping to foster their growth and engage them in learning what they need to succeed beyond high school. This book takes a comprehensive, developmental approach, focusing on 9th-12th grade students rather than solely on those in 11th and 12th grade. It provides a model for developing and enhancing a successful college advising office as well as essential advice on methods of working with parents. Specific topics discussed include successful transition to 9th grade, using technology in the college and career advising process, assisting and advising students in college research and application, and helping seniors make successful transitions to college. There is also a special focus on students in urban and rural schools to enable them to have the same enriched experiences in their college and career advising program as those students in private and suburban schools. The curriculum is geared for use by school counselors, college advisors, and readers in graduate counseling student courses.

ap calculus 21: Princeton Review AP Calculus AB Premium Prep, 12th Edition The Princeton Review, David Khan, 2025-08-05 PREMIUM PRACTICE FOR A PERFECT 5—WITH THE MOST PRACTICE ON THE MARKET! Ace the newly-digital AP Calculus AB Exam with The Princeton Review's comprehensive study guide. Includes 8 full-length practice tests with complete

explanations, timed online practice, and thorough content reviews. Techniques That Actually Work • Tried-and-true strategies to help you avoid traps and beat the test • Tips for pacing yourself and guessing logically • Essential tactics to help you work smarter, not harder Everything You Need for a High Score Updated to address the new digital exam Comprehensive content review for all test topics Online digital flashcards to review core content Drills, handy study guides, helpful pre-college information, and more via your online Student Tools Premium Practice for AP Excellence 8 full-length practice tests (3 in the book, 5 online) with detailed answer explanations Online tests provided as both digital versions (with timer option to simulate exam experience) online, and as downloadable PDFs (with interactive elements mimicking the exam interface) End-of-chapter drills and targeted practice problem sets Step-by-step walk-throughs of key formulas and sample questions

ap calculus 21: Educational Assessment in the 21st Century Claire Wyatt-Smith, Joy Cumming, 2009-08-05 Signs of Change: Assessment Past, Present and Future Another Time, Another Place...Examinations Then and Now In the Temple of Literature in Hanoi, Vietnam, a series of stone stelae records the names of the handful of illustrious examination candidates who, in each century, passed the national examination to become a Doctor of Literature. Beginning in the 11th century, the exams were conducted personally by successive kings who pursued Confucian ideals that found expression in the enormous value placed on the pursuit of wisdom and learning. In the 21st century we are both puzzled and impressed by this tradition. Puzzled by such an explicit commitment to a meritocracy in an essentially feudal society; impressed by this enthusiasm for learning and the pursuit of wisdom at the highest level of society. Yet, there are also important similarities between the 11th and 21st centuries. Then, as now, assessment was associated with excellence, high standards, prestige and competition—success for the chosen few; disappointment for the majority. Then, as now, the pursuit of excellence was embedded in a social context that favoured the elite and determined success in terms of the predilections of the powerful. Then, as now, the purpose of the assessment, the way it was conducted and its impact on society all reflected the social and economic priorities of the day.

ap calculus 21: The United States Catalog, 1906

ap calculus 21: Acing AP Calculus AB and BC,

ap calculus 21: Cracking the AP Calculus AB & BC Exams David S. Kahn, 2009-01-06

Provides a review of the relevant math topics, test-taking tips, and five practice tests with answers.

ap calculus 21: The Cumulative Book Index, 1922

ap calculus 21: STEM Education for the 21st Century Bryan Edward Penprase, 2020-04-07

This book chronicles the revolution in STEM teaching and learning that has arisen from a convergence of educational research, emerging technologies, and innovative ways of structuring both the physical space and classroom activities in STEM higher education. Beginning with a historical overview of US higher education and an overview of diversity in STEM in the US, the book sets a context in which our present-day innovation in science and technology urgently needs to provide more diversity and inclusion within STEM fields. Research-validated pedagogies using active learning and new types of research-based curriculum is transforming how physics, biology and other fields are taught in leading universities, and the book gives profiles of leading innovators in science education and examples of exciting new research-based courses taking root in US institutions. The book includes interviews with leading scientists and educators, case studies of new courses and new institutions, and descriptions of site visits where new trends in 21st STEM education are being developed. The book also takes the reader into innovative learning environments in engineering where students are empowered by emerging technologies to develop new creative capacity in their STEM education, through new centers for design thinking and liberal arts-based engineering. Equally innovative are new conceptual frameworks for course design and learning, and the book explores the concepts of Scientific Teaching, Backward Course Design, Threshold Concepts and Learning Taxonomies in a systematic way with examples from diverse scientific fields. Finally, the book takes the reader inside the leading centers for online education, including Udacity, Coursera

and EdX, interviews the leaders and founders of MOOC technology, and gives a sense of how online education is evolving and what this means for STEM education. This book provides a broad and deep exploration into the historical context of science education and into some of the cutting-edge innovations that are reshaping how leading universities teach science and engineering. The emergence of exponentially advancing technologies such as synthetic biology, artificial intelligence and materials sciences has been described as the Fourth Industrial Revolution, and the book explores how these technologies will shape our future will bring a transformation of STEM curriculum that can help students solve many the most urgent problems facing our world and society.

Related to ap calculus 21

Associated Press News: Breaking News, Latest Headlines and Videos | AP Founded in 1846, AP today remains the most trusted source of fast, accurate, unbiased news in all formats and the essential provider of the technology and services vital to the news

The Associated Press | Video, Photo, Text, Audio & Data News Tap into AP's expertise to create content for your brand, cover worldwide events, and access full production and editorial solutions with AP's unrivaled network of studios and temporary facilities

Global News: Latest and Breaking Headlines | AP News 3 days ago LONDON (AP) — Britain will require all workers to have a digital identification card by the end of this parliamentary

Associated Press - Wikipedia The Associated Press (AP) [4] is an American not-for-profit news agency headquartered in New York City. Founded in 1846, it operates as a cooperative, unincorporated association, and

About Us | The Associated Press Independent, nonpartisan and accurate since 1846. AP today remains the most trusted source of independent, nonpartisan and factual news in all formats and the essential provider of the

U.S. News: Top U.S. News Today | AP News Founded in 1846, AP today remains the most trusted source of fast, accurate, unbiased news in all formats and the essential provider of the technology and services vital to the news

Breaking News Archives | The Associated Press AP dominates coverage of explosive Gen Z-led protests in Nepal that forced the prime minister to resign SEPT. 19, 2025 Find out more

News Highlights - The Associated Press After a U.S. military strike on a suspected drug boat off Venezuela's coast, an all-formats AP team delivered the first on-the-ground report from the remote Paria Peninsula — the departure point

Real Time Breaking News Licensing | The Associated Press To mark this milestone, the AP Corporate Archives has assembled a concise visual history of the organization, offered here in an eight-part monthly series, "AP at 175."

Our people - The Associated Press Our journalists go to great lengths, often overcoming tremendous obstacles, to report the news quickly, accurately and honestly, with the utmost attention paid to AP's high standards.

Associated Press News: Breaking News, Latest Headlines and Videos | AP Founded in 1846, AP today remains the most trusted source of fast, accurate, unbiased news in all formats and the essential provider of the technology and services vital to the news business.

The Associated Press | Video, Photo, Text, Audio & Data News Tap into AP's expertise to create content for your brand, cover worldwide events, and access full production and editorial solutions with AP's unrivaled network of studios and temporary facilities

Global News: Latest and Breaking Headlines | AP News 3 days ago LONDON (AP) — Britain will require all workers to have a digital identification card by the end of this parliamentary

Associated Press - Wikipedia The Associated Press (AP) [4] is an American not-for-profit news agency headquartered in New York City. Founded in 1846, it operates as a cooperative, unincorporated association, and

About Us | The Associated Press Independent, nonpartisan and accurate since 1846. AP today

remains the most trusted source of independent, nonpartisan and factual news in all formats and the essential provider of the

U.S. News: Top U.S. News Today | AP News Founded in 1846, AP today remains the most trusted source of fast, accurate, unbiased news in all formats and the essential provider of the technology and services vital to the news business.

Breaking News Archives | The Associated Press AP dominates coverage of explosive Gen Z-led protests in Nepal that forced the prime minister to resign SEPT. 19, 2025 Find out more

News Highlights - The Associated Press After a U.S. military strike on a suspected drug boat off Venezuela's coast, an all-formats AP team delivered the first on-the-ground report from the remote Paria Peninsula — the departure point

Real Time Breaking News Licensing | The Associated Press To mark this milestone, the AP Corporate Archives has assembled a concise visual history of the organization, offered here in an eight-part monthly series, "AP at 175."

Our people - The Associated Press Our journalists go to great lengths, often overcoming tremendous obstacles, to report the news quickly, accurately and honestly, with the utmost attention paid to AP's high standards. Outside

Related to ap calculus 21

Indiana high school junior becomes only student in the world to earn a perfect score on AP Calculus exam (Fox News3y) An Indiana high school student received a perfect score on the Advanced Placement Calculus AB exam this spring, the only student in the world to achieve such a feat. Felix Zhang, currently a junior at

Indiana high school junior becomes only student in the world to earn a perfect score on AP Calculus exam (Fox News3y) An Indiana high school student received a perfect score on the Advanced Placement Calculus AB exam this spring, the only student in the world to achieve such a feat. Felix Zhang, currently a junior at

Meet kid who got super-rare 100% in AP calculus (USA Today8y) Corrections & Clarifications: An earlier version of this story misstated the percent of students Truman Bennet falls in. He is among 0.006% of students to achieve a perfect score on the exam this year

Meet kid who got super-rare 100% in AP calculus (USA Today8y) Corrections & Clarifications: An earlier version of this story misstated the percent of students Truman Bennet falls in. He is among 0.006% of students to achieve a perfect score on the exam this year

Arcadia High student, 17, earns perfect score on AP calculus exam (Los Angeles Times11y) A 17-year-old Arcadia High School student earned a perfect score on the Advanced Placement Calculus BC exam in May, making him one of only 11 in the world this year to perform such a feat. Nathan Chou

Arcadia High student, 17, earns perfect score on AP calculus exam (Los Angeles Times11y) A 17-year-old Arcadia High School student earned a perfect score on the Advanced Placement Calculus BC exam in May, making him one of only 11 in the world this year to perform such a feat. Nathan Chou

Indiana high school student becomes 1st in world to get perfect score on AP calculus exam (ABC73y) ST. JOSEPH COUNTY, Ind. -- An Indiana high school student has become the only person in the world to land a perfect score on an AP calculus exam. Denise White has taught different levels of calculus

Indiana high school student becomes 1st in world to get perfect score on AP calculus exam (ABC73y) ST. JOSEPH COUNTY, Ind. -- An Indiana high school student has become the only person in the world to land a perfect score on an AP calculus exam. Denise White has taught different levels of calculus