aops algebra course

aops algebra course is a comprehensive and rigorous program designed to deepen students' understanding of algebraic concepts and problem-solving techniques. This course is tailored for motivated learners who seek to excel in mathematics competitions, standardized tests, or advanced school curricula. By engaging with challenging problems and detailed explanations, participants develop critical thinking skills and a strong foundation for higher-level math courses. The aops algebra course emphasizes not only procedural proficiency but also conceptual insight, preparing students for success in various mathematical contexts. This article explores the structure, content, benefits, and enrollment process of the aops algebra course, providing a clear overview for students and parents interested in advanced algebra instruction. The following sections will guide readers through the key aspects of the course and its advantages.

Overview of the aops Algebra Course

The aops algebra course is structured to provide students with a thorough understanding of algebraic principles through a combination of lectures, problem sets, and interactive discussions. It is offered by Art of Problem Solving (AoPS), a renowned organization specializing in advanced math education. The course targets middle and high school students who have mastered basic algebra and are ready to tackle more complex problems. With a focus on critical thinking and analytical skills, the aops algebra course prepares students for competitive exams such as AMC, AIME, and other math contests. The program is available both online and in some physical locations, making it accessible to a wide range of learners.

Target Audience and Skill Level

This course is ideal for students who have a solid grasp of elementary algebra and are looking to advance their knowledge. Typically, learners enrolled in the aops algebra course are in middle school or early high school and have experience with pre-algebra or introductory algebra. The course challenges students to apply concepts in novel ways, encouraging deeper comprehension and flexibility in problem-solving.

Course Duration and Format

The aops algebra course generally spans several weeks, with classes held once or twice a week depending on the format. Each session lasts approximately 1.5 to 2 hours, combining instruction with practice problems. The online platform includes live interactive classes, recorded lectures, and forums for student collaboration. This blended approach supports various learning styles and promotes active engagement.

Course Curriculum and Topics Covered

The curriculum of the aops algebra course is carefully designed to cover a broad spectrum of algebraic topics, moving beyond standard school syllabi. It emphasizes problem-solving strategies and conceptual understanding, preparing students for advanced math challenges. Key topics include expressions, equations, inequalities, functions, and polynomials among others.

Core Algebraic Concepts

The course delves into fundamental algebraic concepts essential for high-level mathematics. Students study linear equations, quadratic equations, and systems of equations in depth. They also explore inequalities, absolute values, and the properties of real numbers, gaining insight into how these elements interact in various mathematical problems.

Advanced Topics

Beyond the basics, the aops algebra course introduces advanced topics such as:

- Polynomials and factoring techniques
- Rational expressions and equations
- Exponents and radicals
- Functions and their properties
- Sequences and series
- Complex numbers

These subjects are presented with an emphasis on understanding underlying principles and applying them to challenging problems.

Teaching Methodology and Learning Approach

The aops algebra course employs a distinctive teaching methodology that combines direct instruction with active learning. This approach fosters a deep understanding of algebraic concepts and enhances problem-solving skills. Students are encouraged to think critically and explore multiple solution

paths.

Interactive Learning Environment

Classes are interactive, with instructors posing challenging questions and facilitating discussions. Students work through problems collaboratively, sharing strategies and insights. This dynamic environment promotes engagement and helps learners internalize concepts more effectively.

Emphasis on Problem Solving

A central feature of the course is its focus on problem solving rather than rote memorization. Students encounter a variety of problems designed to develop logical reasoning and creativity. The curriculum includes both routine exercises and complex problems from math competitions, encouraging students to apply their knowledge in diverse contexts.

Use of Technology and Online Tools

The online platform supports learning through features such as interactive whiteboards, video lessons, and discussion forums. These tools enable students to access content flexibly and receive feedback from instructors and peers. The technology enhances the learning experience and facilitates continuous progress.

Benefits of Enrolling in the aops Algebra Course

Participation in the aops algebra course offers numerous benefits for students aiming to strengthen their math skills and excel academically. The course fosters a deeper understanding of algebra and prepares students for higher-level math studies.

Improved Mathematical Thinking

Students develop critical thinking and analytical abilities by tackling challenging problems. The course encourages logical reasoning and systematic problem-solving approaches, skills valuable across academic disciplines and standardized tests.

Preparation for Math Competitions

The aops algebra course is well-suited for students preparing for math contests such as AMC (American Mathematics Competitions) and AIME (American Invitational Mathematics Examination). The challenging problems and problem-solving emphasis align closely with competition content and formats.

Strong Foundation for Advanced Courses

Completing the aops algebra course equips students with a solid foundation for advanced courses in algebra, geometry, and beyond. The conceptual depth and problem-solving skills gained facilitate success in subsequent math classes and STEM subjects.

Community and Support

Enrolled students become part of a vibrant community of motivated learners. Interaction with peers and instructors provides support, encouragement, and opportunities for collaborative learning. This network can enhance motivation and academic achievement.

Enrollment and Prerequisites

Understanding the enrollment process and prerequisites is essential for prospective students considering the aops algebra course. The program maintains standards to ensure participants are prepared for the course's rigor.

Prerequisite Knowledge

Students should have a firm grasp of pre-algebra concepts, including basic operations, fractions, decimals, and introductory equations. Prior exposure to algebraic expressions and simple equations is highly recommended to succeed in the course.

Registration Process

Enrollment typically involves creating an account on the AoPS platform, selecting the desired course session, and completing payment. Early registration is advised due to limited class sizes and high demand. Some courses may require placement tests or instructor approval.

Course Fees and Scheduling

The cost of the aops algebra course varies depending on the format and duration. Both part-time and full-time options may be available, with flexible scheduling to accommodate students' commitments. Detailed information is provided during registration.

Resources and Support Provided

The aops algebra course offers a range of resources and support mechanisms to enhance learning and ensure student success. These tools complement the instruction and provide additional practice opportunities.

Comprehensive Course Materials

Students receive access to detailed course notes, problem sets, and solution manuals. These materials are designed to reinforce concepts covered in class and support independent study.

Online Forums and Community Support

The AoPS online forums allow students to ask questions, discuss problems, and collaborate with peers. Instructors and teaching assistants actively participate, providing guidance and feedback.

Practice Exams and Assessments

To monitor progress, the course includes regular quizzes and practice exams. These assessments help identify areas for improvement and prepare students for real-world math challenges.

Additional Learning Opportunities

Beyond the core course, AoPS offers supplementary resources such as textbooks, online classes, and math camps. These options provide further enrichment and continued development of algebraic skills.

Frequently Asked Questions

What topics are covered in the AoPS Algebra course?

The AoPS Algebra course covers fundamental algebraic concepts including variables, expressions, equations, inequalities, functions, polynomials, factoring, and problem-solving strategies tailored for competition math.

Who is the AoPS Algebra course designed for?

The AoPS Algebra course is designed for middle and high school students who want to deepen their understanding of algebra and prepare for math competitions such as Mathcounts and AMC.

How is the AoPS Algebra course structured?

The course is structured into interactive lessons, challenging problem sets, and quizzes that encourage critical thinking and mastery of algebraic concepts through a problem-solving approach.

Are there any prerequisites for enrolling in the AoPS Algebra course?

Students should have a basic understanding of pre-algebra concepts before enrolling in the AoPS Algebra course to ensure they can follow the material effectively.

What makes the AoPS Algebra course different from regular algebra classes?

Unlike typical algebra classes, the AoPS Algebra course emphasizes problem-solving skills, rigorous reasoning, and preparing students for math competitions with challenging and creative problems.

Additional Resources

1. *Introduction to Algebra*
This book is a foundational text designed for students beginning their journey into algebra. It covers essential topics such as variables, expressions, equations, and inequalities with clear explanations and numerous practice problems. The book emphasizes problem-solving skills and logical reasoning, making it a perfect companion for an AoPS Algebra course.

2. *Intermediate Algebra*
A follow-up to introductory texts, this book dives deeper into algebraic concepts including quadratic equations, functions, and polynomials. It challenges students with a variety of problems that promote critical thinking and mastery of algebraic techniques. The text is aligned with the rigor expected in the AoPS curriculum, preparing students for advanced mathematical competitions.

3. *Art of Problem Solving Volume 1: The Basics*
This comprehensive volume covers a broad range of algebra topics along with number theory, counting, and probability. It is well-known for its engaging problems and thorough explanations that encourage students to develop a deep understanding rather than rote memorization. The book is widely used in AoPS courses and is an excellent resource for self-study.

4. *Competition Math for Middle School*
Though targeted at middle schoolers, this book provides a solid introduction to algebraic problem-solving strategies used in math competitions. It includes many challenging problems and detailed solutions that help students build confidence and sharpen their skills. This book complements the AoPS Algebra course by reinforcing concepts through applied problems.

5. *Algebra Through Practice: Volume 1*
This book emphasizes learning algebra by working through carefully selected problems that cover fundamental to intermediate topics. Each section focuses on a specific concept, with problems designed to gradually increase in difficulty. It is an excellent workbook to accompany an AoPS Algebra course, helping students solidify their understanding.

6. *Problem-Solving Strategies in Algebra*
Focusing on strategic approaches to solve algebra problems, this book introduces various problem-solving techniques including substitution, factoring, and equation manipulation. It encourages creative thinking and helps students develop methods to tackle unfamiliar problems effectively. Ideal for students who want to deepen their problem-solving skills beyond standard coursework.

7. *Algebra and Number Theory: A Problem-Solving Approach*
This text integrates algebraic concepts with number theory, providing a rich problem-solving environment. The blend of topics reflects the interconnected nature of mathematics and prepares students for competitions and advanced

studies. Its challenging problems and detailed solutions are suitable for students enrolled in AoPS courses.

8. *Challenging Algebra Problems*
Designed for students who have mastered the basics, this book offers a collection of difficult algebra problems that require higher-order thinking. It includes problems from past math contests and original questions that test creativity and persistence. This book is perfect for AoPS students looking to push their limits and prepare for contests.

9. *Algebra: Structure and Method, Book 1*
A classic algebra textbook that provides a thorough treatment of algebraic principles and methods. It balances theory and practice, presenting clear explanations followed by numerous exercises. Many AoPS students find this book useful for reinforcing their algebra fundamentals and building a strong mathematical foundation.

Aops Algebra Course

aops algebra course: The Well-Trained Mind Susan Wise Bauer, Jessie Wise, 2016-08-09 Is your child getting lost in the system, becoming bored, losing his or her natural eagerness to learn? If so, it may be time to take charge of your child's education—by doing it yourself. The Well-Trained Mind will instruct you, step by step, on how to give your child an academically rigorous, comprehensive education from preschool through high school—one that will train him or her to read, to think, to understand, to be well-rounded and curious about learning. Veteran home educators Susan Wise Bauer and Jessie Wise outline the classical pattern of education called the trivium, which organizes learning around the maturing capacity of the child's mind and comprises three stages: the elementary school "grammar stage," when the building blocks of information are absorbed through memorization and rules; the middle school "logic stage," in which the student begins to think more analytically; and the high-school "rhetoric stage," where the student learns to write and speak with force and originality. Using this theory as your model, you'll be able to instruct your child—whether full-time or as a supplement to classroom education—in all levels of reading, writing, history, geography, mathematics, science, foreign languages, rhetoric, logic, art, and music, regardless of your own aptitude in those subjects. Thousands of parents and teachers have already used the detailed book lists and methods described in The Well-Trained Mind to create a truly superior education for the children in their care. This extensively revised fourth edition contains completely updated curricula and book lists, links to an entirely new set of online resources, new material on teaching children with learning challenges, cutting-edge math and sciences recommendations, answers to common questions about home education, and advice on practical matters such as standardized testing, working with your local school board, designing a high-school program, preparing transcripts, and applying to colleges. You do have control over what and how your child learns. The Well-Trained Mind will give you the tools you'll need to teach your child with confidence and success.

aops algebra course: Art of Problem Solving High School Indigo 5-Book Boxed Set # 3

Richard Rusczyk, Matthew Crawford, David Patrick, 2019-06-25 Art of Problem Solving High School Indigo 5-Book Boxed Set # 3 : Art of Problem Solving Intermediate Algebra 2-Book Set : a comprehensive textbook covering Algebra 2 and topics in Precalculus. This book is the follow-up to the acclaimed Introduction to Algebra textbook. In addition to offering standard Algebra 2 and Precalculus curriculum, the text includes advanced topics such as those problem solving strategies required for success on the AMC and AIME competitions. Art of Problem Solving Intermediate Counting and Probability 2-Book Set is an intermediate textbook in counting and probability for students in grades 9-12, containing topics such as inclusion-exclusion, recursion, conditional probability, generating functions, graph theory, and more. The Fifth Book is a Surprise Horrible Book from the Horrible Books Humorously Educational Series that covers Math, Science, Geography, History, and Biography that will totally complement your child's love for learning.

aops algebra course: *Homeschooling For Dummies* Jennifer Kaufeld, 2020-08-06 Homeschool with confidence with help from this book Curious about homeschooling? Ready to jump in? Homeschooling For Dummies, 2nd Edition provides parents with a thorough overview of why and how to homeschool. One of the fastest growing trends in American education, homeschooling has risen by more than 61% over the last decade. This book is packed with practical advice and straightforward guidance for rocking the homeschooling game. From setting up an education space, selecting a curriculum, and creating a daily schedule to connecting with other homeschoolers in your community Homeschooling For Dummies has you covered. Homeschooling For Dummies, 2nd Edition is packed with everything you need to create the homeschool experience you want for your family, including: Deciding if homeschooling is right for you Developing curricula for different grade levels and abilities Organizing and allocating finances Creating and/or joining a homeschooling community Encouraging socialization Special concerns for children with unique needs Perfect for any current or aspiring homeschoolers, Homeschooling For Dummies, 2nd Edition belongs on the bookshelf of anyone with even a passing interest in homeschooling as an alternative to or supplement for traditional education.

aops algebra course: Articles and Excerpts, Volume 1 AoPS Incorporated, 2006

aops algebra course: How to Make Sure Your Child Gets an A+ in Math Shu Chen Hou, Unlock Your Child's Full Math Potential and Secure Their Academic Success! Are you concerned about your child's math performance? Do you want to see them not just pass but excel in this critical subject? How to Make Sure Your Child Gets an A+ in Math is your ultimate guide to transforming your child into a math champion! This groundbreaking book takes you on a journey through the world of math education, offering invaluable insights, proven strategies, and expert advice to ensure your child's success. From building a strong math foundation to mastering effective study techniques, this book covers it all. Discover how to: Instill a growth mindset to boost confidence and motivation. Navigate the intricacies of the math curriculum at every grade level. Support your child's learning journey with effective communication and collaboration with teachers. Equip them with winning exam strategies to outperform their peers. With real-life case studies and success stories, you'll witness firsthand the transformation that can happen when you apply these techniques. Plus, you'll find essential resources for additional help, math competitions, and long-term career planning in mathematics. Don't let your child struggle with math when they can shine! Invest in their academic future today with How to Make Sure Your Child Gets an A+ in Math. Give your child the confidence, knowledge, and skills to conquer the world of math and secure a bright future. Order now and watch them rise to the top of the class!

aops algebra course: *NumPy: Beginner's Guide* Ivan Idris, 2015-06-24 In today's world of science and technology, it's all about speed and flexibility. When it comes to scientific computing, NumPy tops the list. NumPy will give you both speed and high productivity. This book will walk you through NumPy with clear, step-by-step examples and just the right amount of theory. The book focuses on the fundamentals of NumPy, including array objects, functions, and matrices, each of them explained with practical examples. You will then learn about different NumPy modules while performing mathematical operations such as calculating the Fourier transform, finding the inverse

of a matrix, and determining eigenvalues, among many others. This book is a one-stop solution to knowing the ins and outs of the vast NumPy library, empowering you to use its wide range of mathematical features to build efficient, high-speed programs.

aops algebra course: Prealgebra Richard Rusczyk, David Patrick, Ravi Bopu Boppana, 2024 Prealgebra prepares students for the rigors of algebra and also teaches students problem-solving techniques to prepare them for prestigious middle school math contests such as MATHCOUNTS, MOEMS, and the AMC 8. The text is written to challenge students at a much deeper level than a traditional middle school prealgebra course.

aops algebra course: *Eccentric Variables. Literally and Figuratively* Cornéliu Tocan, 2021-12-01

aops algebra course: Home Learning Year by Year, Revised and Updated Rebecca Rupp, 2020-01-21 A comprehensive guide to designing homeschool curriculum, from one of the country's foremost homeschooling experts—now revised and updated! Homeschooling can be a tremendous gift to your children—a personalized educational experience tailored to each kid's interests, abilities, and learning styles. But what to teach, and when, and how? Especially for first-time homeschoolers, the prospect of tackling an annual curriculum can be daunting. In Home Learning Year by Year, Rebecca Rupp presents comprehensive plans from preschool through high school, covering integral subjects for each grade, with lists of topics commonly presented at each level, recommended resource and reading lists, and suggestions for creative alternative options and approaches. Included, along with all the educational basics, are techniques and resources for teaching everything from philosophy to engineering, as well as suggestions for dealing with such sensitive topics as sex education. Now revised throughout with all-new updates featuring the most effective and up-to-date methods and reading guides to homeschool your child at all ages, Home Learning Year by Year continues to be the definitive book for the homeschooling parent.

aops algebra course: Variabile excentrice... la propriu și la figurat Cornéliu Tocan, 2021-04-01 Cartea reprezintă o pledoarie față de învățătorii și profesorii de matematică (de nivel primar, gimnazial și liceal) – acești tenaci timonieri de destine profesionale care navighează de decenii pe oceanele cunoașterii – precum și față de participanții la olimpiade de matematică și elevii dotați – intrepizii exploratori intelectuali care împing zilnic frontierele cogniției. Schimbând de cap pentru a se apropia de această promițătoare metodă de predare, aceștia vor atrage în siajul lor pe cei buni la matematică, matleții, îndrăgostiții de matematică, persoanele animate de curiozitate intelectuală, mințile carteziene. Cartea este un instrument practic și util de îmbogățire intelectuală pentru elevii de toate nivelurile și pentru părinții lor. Astfel, respectând ritmul fiecăruia și al tuturor, elevii avansați se pot familiariza cu noțiuni depășind nivelul lor oficial, elevii care au înțeles și și-au însușit materia curentă au oportunitatea de a explora concepte din anii superiori – ca îmbogățire sau ca metode alternative, exploatând cunoștințele acumulate în prezent –, iar elevii descurajați și cu gânduri de abandon pot tatona această nouă abordare pentru a(-și) demonstra că sunt capabili să rezolve exerciții din anii următori, ceea ce ar contribui la reclădirea stimei de sine și la dobândirea motivației necesare pentru a persevera. Orice părinte ar fi mulțumit de educația oferită în școală și ar fi extrem de mândru aflând că progenitura sa este capabilă să rezolve exerciții la un nivel mai avansat.

aops algebra course: Variables excentriques... au propre et au figuré Cornéliu Tocan, 2020-05-05 L'ouvrage est un plaidoyer auprès des enseignants de mathématiques (tant au niveau primaire qu'au secondaire) – ces tenaces timoniers de destins professionnels, qui, pour des décennies, naviguent sur les océans du savoir – et aussi bien auprès des participants aux olympiades de mathématiques et des élèves doués – les intrépides explorateurs intellectuels qui poussent quotidiennement les frontières de la cognition. En changeant de cap pour s'approcher de cette prometteuse méthode didactique, ils entraîneront dans leur sillage les matheux, les amants des mathématiques, les gens carburés par la curiosité intellectuelle, les esprits cartésiens. Le livre est un enrichissement pratique et utile pour tous les élèves de tous les niveaux et leurs parents. Le devancement de la matière est l'un des avantages immédiats de cette approche didactique, avec des

effets pédagogiques rapides et bénéfiques. Ainsi, les élèves avancés peuvent se familiariser avec de la matière supérieure à leur niveau officiel, les élèves ayant compris et maîtrisé la matière en cours ont l'occasion d'explorer des notions des années futures – à titre d'enrichissement ou de méthode alternative, tout en exploitant les acquis du présent –, tandis que les élèves découragés et ayant des pensées de décrochage (se) démontrent qu'ils sont capables de résoudre des exercices des années à venir, ce que leur permettrait de rebâtir leur estime de soi, de gagner de la confiance et d'acquérir la motivation nécessaire pour persévérer. En respectant la bien connue doctrine pédagogique « chacun à son rythme », l'estime de soi et la motivation des élèves seront grandissantes. Tout parent serait content de l'enseignement dispensé à l'école, en étant extrêmement fier d'apprendre que sa progéniture est capable de résoudre des exercices de niveau plus avancé. Témoignages Camp de mathématiques 21-25 juin 2019 Polytechnique Montréal Association Mathématique du Québec – participants rencontrés en 2019 – ▼▼▼ Je suis très impressionné par tout l'effort que l'auteur a mis dans son livre. Je crois que ses motivations sont celles d'un chercheur scientifique, de quelqu'un qui veut comprendre et veut partager sa solution élégante. Particulièrement en mathématiques, on peut être guidés par l'élégance, comme le disait G. H. Hardy. Prof. Marc Laforest, Ph. D. Département de mathématiques et de génie industriel Polytechnique Montréal ▼▼▼ À travers ma lecture sur la résolution de problèmes avec les variables excentriques, j'ai appris une nouvelle et superbe façon de penser autrement et logiquement avec une abondance d'applications concrètes. La beauté des variables excentriques, c'est que c'est une approche facile à comprendre qui est même utile à l'école et dans les concours de mathématiques! Je conseille la lecture à des étudiants autant jeunes que vieux, qui aimeraient explorer les mathématiques et pousser leurs capacités de résoudre des problèmes difficiles. Je conseille aussi cette lecture aux professeurs de mathématiques qui pourront montrer cette technique à leurs étudiants ayant de la difficulté à résoudre des problèmes de la façon «traditionnelle». John Bramos – Collège Sainte-Anne, Montréal participant à des concours de mathématiques (AQJM, Opti-Math, AMQ, Pascal, Pythagore, Fibonacci) ▼▼▼ Une belle œuvre mathématique qui nourrit les jeunes où ils ont le plus besoin. Le livre simplifie des concepts algébriques en définissant des variables reposant sur une agréable symétrie. Intégrer les variables excentriques dans les programmes du secondaire pour donner suite à l'enseignement de l'algèbre pourrait briser l'inertie psychologique du choix traditionnel d'une variable dans un problème mathématique afin de pousser les frontières de la norme algébrique imposée par le système d'éducation du secondaire. Pour ma part, je recommande cette source de savoir à toute personne désirant remettre en question l'enseignement traditionnel de l'algèbre ou à ceux qui veulent tout simplement mieux performer dans des concours de mathématiques. Rami Ghantous – Collège Jean-de-Brébeuf et Collège Beaubois, Montréal Participant à des concours mathématiques (AMQ, Thalès, Gauss, Euclide, Fermat) ▼▼▼ Ce livre présente un concept pratique et simple qui permet de voir sous un nouvel angle plusieurs types de calculs. En plus de rendre certains problèmes d'algèbre, plus avancés, accessibles plus tôt dans le cursus, les variables excentriques montrent un aspect plus créatif des mathématiques, chose qui n'est pas assez présente dans les cours de cette matière dispensés à l'école. L'utilisation des variables excentriques devrait être enseignée non seulement pour donner un autre outil pour la résolution de certains problèmes, mais également pour montrer aux élèves que l'on peut toujours sortir des sentiers battus, même en mathématiques. Lynda Khalfoun – Collège Jésus-Marie de Sillery, Québec participante à des concours de mathématiques (AQJM, AMQ) ▼▼▼ Tout au long de ma lecture de ce livre, je me suis retrouvé à être de plus en plus fasciné par les variables excentriques et toutes les utilités qui y sont rattachées. Il est rare de trouver un ouvrage qui montre une nouvelle méthode de résolution de problèmes, autant agréable que facile à lire. Si j'étais tombé sur un livre comme celui-ci au secondaire, mes professeurs de mathématiques n'auraient jamais arrêté d'en entendre parler, puisque – adorant trouver de nouvelles solutions à chaque problème – j'aurais eu les variables excentriques comme nouvel outil. Maintenant que je les ai découvertes, il est certain que je vais me mettre à les utiliser. De plus, étant avide de concours de mathématiques, je passe beaucoup de temps à étudier de nouvelles formules ou apprendre des techniques pour aller plus vite, tout en faisant le moins d'erreur de calculs. J'ai

maintenant une excellente méthode que je compte mettre à profit, puisque, en plus d'être intuitive, elle simplifie grandement certains calculs. Marc-Antoine Mongrain Collège Jean-Eudes et Collège Jean-de-Brébeuf, Montréal Participant à des concours de mathématiques (AQJM, AMQ, AMC, CCMS, Opti-Math, Purple Comet, Thalès, Byron-Germain, Fibonacci, Pythagore, Gauss, Pascal, Cayley, Fermat, Euclide, camp de l'université d'Ottawa) ▼▼▼ À travers ce livre, l'auteur nous fait découvrir l'utilité et la créativité des variables excentriques, et la résolution des problèmes avec celles-ci. La lecture de ce livre fut extrêmement agréable, car j'étais en train de découvrir des méthodes de résolutions de problèmes créativement différentes par rapport à celles apprises à l'école. Notamment les résolutions appelées « hors des sentiers battus » m'ont émerveillée avec leur simplicité de compréhension et leur élégance. En deuxième et troisième du secondaire, j'aurais été ravie d'avoir lu ce livre ou de m'avoir enseigné ce sujet dans mes classes, puisque l'utilisation des variables excentriques ne nécessite pas de notions plus avancées que l'algèbre de base, mais permet toutefois de résoudre autant, et même plus, de problèmes qu'avec des notions plus complexes apprises à la fin du secondaire. Je recommande ce livre à tous et à toutes les avides enthousiastes des mathématiques, et même à ceux qui ne le sont pas. Anna Shi – Collège Sainte-Anne, Montréal participante à des concours de mathématiques (AMQ, COMC, AQJM, AMC, Opti-Math) ▼▼▼ Après ma lecture, j'ai découvert qu'il y avait plusieurs méthodes simples et efficaces pour résoudre des questions difficiles. Malgré la simplicité du sujet, il s'avère extrêmement utile pour tout problème et sert très bien de base pour des concours de mathématiques. C'est la beauté des variables excentriques! Ce livre approfondit aussi beaucoup nos connaissances envers ce sujet, que l'école n'enseigne malheureusement pas. Je crois certainement que ce concept vaudrait la peine d'être enseigné au secondaire, parce ce qu'il développerait la pensée mathématique. Leo Shi – Collège Jean-de-Brébeuf, Montréal participant à des concours de mathématiques (COMC, CMO, Gauss, Pascal, Fryer, CIMC, Kangaroo, AMC 10, Mathematica, AMQ, AQJM, Opti-Math) ▼▼▼ On nous présente une méthode qui est à connaître par tous les avides de mathématiques au niveau d'olympiade. Les variables excentriques représentent une manière élégante de simplifier des problèmes complexes et elles sont adroitement explorées pour plusieurs branches mathématiques. Leo Vanciu – Collège Jean de la Mennais, Montréal participant à des concours de mathématiques (AMQ, COMC, Formula of Unity, AQJM, AMC, Kangaroo, Cayley, Fermat, Galois, Russian Tournament of the Towns) • • ▼▼▼ J'admire dans cette œuvre la passion et la sincérité de l'auteur par rapport au sujet, ce qui permet aux lecteurs d'avoir une compréhension plus aisée des variables excentriques. Faisant partie des gens avec une facilité en mathématiques, je suis d'avis que chacun devrait avoir la possibilité d'apprendre des notions à leur niveau et à leur rythme. Je crois que cet ouvrage en est la clé. J'aurais bien aimé apprendre ces notions en classe; je suis ravie d'avoir pris connaissance d'un nouvel outil mathématique. • • ▼▼▼ Kassandra Roberge – Collège Jésus-Marie de Sillery, Québec participante à des concours de mathématiques (AQJM, AMQ, Gauss, Fryer, Galois, Hypathia, Euclid) ▼▼▼ Enseigner, c'est outiller intellectuellement. Ce que propose ici Cornéliu Tocan est une remarquable clé à molette mathématique, un outil polyvalent capable d'affronter efficacement une grande variété de problèmes. Mais avant tout, comme les méthodes proposées reposent sur la symétrie, notion intimement liée à l'esthétique, ces pages regorgent d'une qualité ô combien désirable: l'élégance. Luc Tremblay, enseignant de mathématiques Collège Jésus-Marie de Sillery, Québec • • ▼▼▼ J'ai parcouru l'ouvrage « Variables excentriques » avec beaucoup d'enthousiasme. Cela m'a rappelé de nombreux souvenirs de secondaire et du cégep, par l'introduction graduelle des notions et par les démonstrations détaillées et pas à pas des solutions. C'est une approche didactique originale de plusieurs méthodes basées sur la même notation, offrant des applications inédites. Enseignée au secondaire, la technique des variables excentriques pourrait aider des élèves en difficulté ou bien susciter la curiosité des élèves les plus aguerris en mathématiques. C'est un bon travail de recherche et de vulgarisation. Jean-Philippe Grenier, actuaire Morneau Shepell, Québec

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