introduction to algebra richard rusczyk

Introduction to Algebra Richard Rusczyk: Unlocking the World of Mathematical Thinking

introduction to algebra richard rusczyk is more than just a phrase—it's an invitation to explore algebra through the lens of one of the most influential math educators of our time. Richard Rusczyk, the founder of Art of Problem Solving (AoPS), has transformed how students approach algebra, making it accessible, engaging, and deeply enriching. Whether you're a student stepping into algebra for the first time or an educator seeking fresh ways to inspire, understanding Rusczyk's approach offers invaluable insights into mastering this foundational branch of mathematics.

Who is Richard Rusczyk and Why His Introduction to Algebra Matters

Richard Rusczyk is a mathematician, educator, and author well-known for revolutionizing math education, especially for high-achieving students and math competition enthusiasts. His work centers around nurturing problem-solving skills, logical reasoning, and a profound understanding of mathematical concepts rather than rote memorization.

The "Introduction to Algebra" by Richard Rusczyk is not just a textbook—it's a gateway. It's designed to build a solid algebraic foundation while encouraging curiosity and critical thinking. This book, part of the Art of Problem Solving curriculum, challenges traditional learning methods and invites students to think like mathematicians from the start.

Breaking Down the Approach: What Makes Rusczyk's

Introduction to Algebra Unique?

Emphasis on Problem Solving

Unlike conventional algebra textbooks that focus heavily on procedural drills and formula memorization, Rusczyk’s approach integrates problem solving into every lesson. His problems often require students to apply multiple concepts creatively, fostering deeper comprehension and flexibility in thinking.

Layered Learning and Conceptual Depth

The introduction to algebra Richard Rusczyk offers moves beyond quick answers. It encourages students to understand the "why" behind each algebraic rule. This layered approach builds conceptual depth step-by-step, helping learners develop confidence in dealing with abstract ideas such as variables, expressions, equations, and functions.

Engaging and Challenging Exercises

The exercises in Rusczyk’s algebra book are carefully crafted to be challenging yet achievable. They often include problems inspired by math competitions like AMC (American Mathematics Competitions), which helps sharpen analytical skills and prepares students for more advanced mathematical thinking.

Core Topics Covered in Rusczyk’s Introduction to Algebra

When diving into this introduction, students will encounter a broad range of algebraic concepts

presented in a clear, logical sequence:

- **Basic Algebraic Expressions and Manipulations**: Understanding variables, constants, and algebraic notation.
- **Equations and Inequalities**: Solving linear equations, systems of equations, and exploring inequalities.
- **Functions and Graphs**: Introduction to functions, interpreting graphs, and understanding relationships between variables.
- **Polynomials and Factoring**: Building skills to manipulate and factor polynomials effectively.
- **Word Problems and Real-Life Applications**: Applying algebraic thinking to translate and solve real-world problems.

Each topic is reinforced with numerous practice problems, hints, and detailed solutions, making the learning experience robust and self-guided.

Why Choose Richard Rusczyk's Introduction to Algebra: Benefits for Students and Educators

Building Strong Foundations for Advanced Math

One of the biggest advantages of Rusczyk's introduction is how it prepares students for higher-level math courses, including geometry, precalculus, and even calculus. Because the book fosters problem-solving and critical thinking, students gain skills that extend far beyond algebra itself.

Encouraging Independent Learning

The book is designed to empower students to learn independently. With clear explanations, strategic

problem sets, and solution guides, learners can progress at their own pace. This aspect is especially beneficial for gifted students or those preparing for math competitions.

Enhancing Mathematical Communication

Rusczyk emphasizes precise language and logical argumentation. Through carefully structured problems and explanations, students learn to communicate their mathematical reasoning clearly—a skill that is invaluable in academic and professional settings.

How to Effectively Use the Introduction to Algebra Richard Rusczyk

Setting Up a Study Plan

To get the most out of this resource, it's helpful to approach the material systematically. Here's a simple plan to consider:

1. **Read Each Section Thoroughly**: Don't rush through explanations; take time to understand each concept.
2. **Attempt Problems Without Help**: Challenge yourself to solve problems before checking hints or solutions.
3. **Review Mistakes**: Analyze errors to understand misunderstandings and avoid repeating them.
4. **Use Supplementary Resources**: AoPS online community and forums can provide additional support and discussion opportunities.

Integrating with Other Learning Tools

Many students pair Rusczyk's introduction with online courses, math circles, or tutoring to deepen their understanding. The AoPS website offers interactive classes and resources that complement the book perfectly.

The Role of Art of Problem Solving in Revolutionizing Algebra Learning

Richard Rusczyk's Introduction to Algebra is part of a larger movement through AoPS aiming to nurture mathematical talent and enthusiasm in a new generation. By focusing on problem-solving and deep conceptual understanding, AoPS has created a thriving community and set of resources that have helped countless students excel in math competitions and academics.

The philosophy behind AoPS is simple yet powerful: math isn't just about getting answers quickly; it's about thinking deeply, reasoning logically, and enjoying the challenge of problem solving. This mindset, embedded in the Introduction to Algebra, transforms the way students interact with math.

Tips for Parents and Teachers Using Rusczyk's Introduction to Algebra

If you're a parent or educator guiding a student through this material, here are some strategies to keep in mind:

- **Encourage Perseverance**: Some problems will be tough; remind students that struggle is part of learning.

- **Foster Discussion**: Talk through problems and solutions to develop reasoning skills.
- **Celebrate Progress**: Recognize milestones to keep motivation high.
- **Connect Concepts to Real Life**: Help students see how algebra relates to everyday situations, making learning more relevant.

Exploring Online Communities and Additional Resources

Beyond the book, Richard Rusczyk and AoPS offer an extensive ecosystem of online forums, math competitions preparation materials, and interactive classes. These resources enrich the learning experience by connecting students with peers and mentors who share their passion for math.

For example, AoPS's online platform allows students to:

- Ask detailed questions about problems they find challenging.
- Participate in math contests and practice sessions.
- Access video lessons that complement the book's content.

Such resources ensure that an introduction to algebra through Richard Rusczyk is not a solitary journey but a collaborative and dynamic adventure.

Engaging with the introduction to algebra Richard Rusczyk provides is an invitation to see math as an exciting problem-solving adventure rather than a dry academic subject. Through careful explanation, thoughtful problem design, and a focus on critical thinking, this resource equips learners with the tools and confidence to navigate algebra and beyond with enthusiasm and skill. Whether you're just starting out or looking to deepen your understanding, Rusczyk's approach opens doors to a richer mathematical experience.

Frequently Asked Questions

What is 'Introduction to Algebra' by Richard Rusczyk about?

'Introduction to Algebra' by Richard Rusczyk is a comprehensive textbook designed to teach fundamental algebra concepts with a focus on problem-solving and critical thinking, often used by students preparing for math competitions.

Who is Richard Rusczyk, the author of 'Introduction to Algebra'?

Richard Rusczyk is a mathematician and educator, founder of Art of Problem Solving (AoPS), known for creating rigorous and engaging math curriculum and resources for advanced middle and high school students.

What makes 'Introduction to Algebra' by Richard Rusczyk different from other algebra textbooks?

The book emphasizes deep understanding and creative problem-solving rather than rote memorization. It includes challenging problems, detailed solutions, and encourages students to think like mathematicians.

Is 'Introduction to Algebra' by Richard Rusczyk suitable for beginners?

Yes, it is suitable for students who have a basic understanding of arithmetic and are ready to explore algebra concepts more deeply, especially those interested in math competitions or advanced math studies.

Where can I find supplemental resources to accompany 'Introduction to Algebra' by Richard Rusczyk?

Supplemental resources such as online classes, videos, problem sets, and community forums are available on the Art of Problem Solving website, which supports the textbook and helps students

deepen their understanding.

Additional Resources

Introduction to Algebra Richard Rusczyk: A Closer Look at a Foundational Math Resource

introduction to algebra richard rusczyk stands as a notable entry point for students and educators seeking a comprehensive foundation in algebraic concepts. Authored by Richard Rusczyk, a renowned figure in mathematics education and founder of Art of Problem Solving (AoPS), this resource has garnered attention for its rigorous approach tailored to motivated learners. This article delves into the core features, pedagogical philosophy, and comparative standing of "Introduction to Algebra" within the broader landscape of algebra textbooks and learning materials.

Understanding the Pedagogical Approach of Introduction to Algebra Richard Rusczyk

Richard Rusczyk's "Introduction to Algebra" is not merely a textbook; it embodies a unique educational philosophy aimed at fostering deep understanding rather than rote memorization. Designed primarily for middle school students who exhibit an interest in mathematics beyond the standard curriculum, the book emphasizes problem-solving skills and critical thinking. Rusczyk's approach reflects his background in math competitions, which heavily influences the text's structure and content.

Unlike traditional algebra textbooks that often follow a linear, procedural method, "Introduction to Algebra" encourages learners to engage with challenging problems that require creative reasoning. This approach helps students internalize concepts such as equations, inequalities, functions, and polynomials by applying them in diverse problem contexts. The rich problem sets are carefully curated to build confidence and mathematical maturity.

Core Features and Content Overview

"Introduction to Algebra" covers fundamental algebraic topics through a progression that balances theory with practice. Key sections include:

- Basic Algebraic Expressions and Equations
- Linear and Quadratic Functions
- Inequalities and Absolute Values
- Polynomials and Factoring Techniques
- Introduction to Graphing and Coordinate Geometry

Each chapter integrates detailed explanations, worked examples, and a broad spectrum of exercises that range in difficulty. The exercises are designed to reinforce concepts while also preparing students for competitive math environments. Importantly, the book includes problem-solving strategies that go beyond standard curriculum approaches, encouraging students to think strategically about algebraic challenges.

The Role of Richard Rusczyk and Art of Problem Solving in Shaping Algebra Education

Richard Rusczyk is widely recognized for founding Art of Problem Solving, an educational platform that has revolutionized math learning for advanced students. His contributions extend beyond textbooks to

include online courses, instructional videos, and interactive forums. "Introduction to Algebra" is part of a broader ecosystem aimed at nurturing mathematical talent.

The book’s success is partly due to its alignment with AoPS’s emphasis on inquiry-based learning and community support. Students using this resource often find themselves part of a larger network of learners and educators, which fosters motivation and collaborative problem-solving. This integration distinguishes Rusczyk’s algebra material from many traditional textbooks, which tend to function as standalone references.

Comparative Analysis: Introduction to Algebra vs. Traditional Textbooks

When comparing "Introduction to Algebra Richard Rusczyk" to more conventional algebra textbooks, several distinctions emerge:

- **Depth and Rigor:** Rusczyk’s text tends to present material at a higher difficulty level, targeting students who seek challenges beyond typical classroom instruction.
- **Problem-Solving Focus:** Unlike textbooks that emphasize procedural exercises, this book prioritizes conceptual understanding through complex problems.
- **Audience:** While traditional books cater to a broad student base, "Introduction to Algebra" is specifically designed for motivated learners and math competition aspirants.
- **Supplementary Resources:** The AoPS ecosystem offers extensive online support, which is less common with mainstream textbooks.

These factors make Rusczyk's book particularly appealing for students preparing for math contests or those who wish to develop a robust algebraic foundation. However, some educators note that the book's challenging nature may not suit all learners, especially those who require more guided instruction or slower pacing.

Integrating Introduction to Algebra Richard Rusczyk into Educational Settings

For educators considering the inclusion of "Introduction to Algebra" in their curriculum, understanding its appropriate placement and complementary resources is vital. Due to its advanced content, it is often used as a supplementary text alongside standard classroom materials rather than a primary textbook.

Best Practices for Implementation

- **Supplemental Use:** Incorporate chapters or problem sets to enrich standard algebra courses, particularly for gifted programs or math clubs.
- **Self-Study:** Recommended for motivated students pursuing independent study or preparing for math competitions.
- **Discussion and Collaboration:** Utilize AoPS online forums and study groups to support learning and problem-solving discussions.
- **Teacher Facilitation:** Instructors should provide guidance on complex topics, helping students navigate challenging problems without discouragement.

This strategic integration ensures that the book’s potential is maximized without overwhelming students who might find the rigorous nature demanding.

Limitations and Considerations

Despite its strengths, "Introduction to Algebra Richard Rusczyk" has certain limitations that educators and learners should consider:

1. **Accessibility:** The advanced problem sets may intimidate beginners or those with weaker math backgrounds.

2. **Linear Progression:** While comprehensive, the book’s structure assumes a relatively uniform advancement, which may not align perfectly with all classroom pacing.

3. **Supplemental Needs:** Users may require additional resources for fundamental concept reinforcement or alternative explanations.

Awareness of these factors can help in making informed decisions about how best to use the resource in various educational contexts.

Conclusion: The Enduring Impact of Introduction to Algebra Richard Rusczyk

"Introduction to Algebra Richard Rusczyk" occupies a distinctive place in the world of math education.

Its rigorous, problem-focused methodology challenges students to develop a profound understanding of algebraic principles, preparing them for advanced studies and competitive mathematics. While its demanding nature may not suit every learner, the book's integration into the Art of Problem Solving ecosystem ensures a supportive environment for motivated students. As a result, it continues to be a valuable resource for fostering mathematical excellence and inspiring a new generation of problem solvers.

Introduction To Algebra Richard Rusczyk

introduction to algebra richard rusczyk: *Introduction to Algebra* Richard Rusczyk, 2009

introduction to algebra richard rusczyk: *Articles and Excerpts, Volume 1* AoPS Incorporated, 2006

introduction to algebra richard rusczyk: Introduction to Algebra Solution Manual Richard Rusczyk, 2009

introduction to algebra richard rusczyk: 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.

introduction to algebra richard rusczyk: *Eccentric Variables. Literally and Figuratively* Cornéliu Tocan, 2021-12-01

introduction to algebra richard rusczyk: 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.

introduction to algebra richard rusczyk: 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!

introduction to algebra richard rusczyk: 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

introduction to algebra richard rusczyk: Introduction to Geometry Richard Rusczyk, 2007-07-01

introduction to algebra richard rusczyk: *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.

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