

The rosie effect the rosie project series Textbook

The Rosie Effect: The Rosie Project Series

The Rosie Effect is the highly anticipated sequel in The Rosie Project series by Graeme Simsion. This engaging and humorous series has captivated readers worldwide with its unique blend of comedy, romance, and insightful portrayal of neurodiversity. As the follow-up to The Rosie Project, The Rosie Effect continues the story of Don Tillman, a brilliant but socially awkward genetics professor, and his wife Rosie Jarman. This article delves into the series' background, characters, themes, and why it has become a must-read for fans of contemporary fiction and romantic comedies.

Overview of The Rosie Project Series

Background and Origin

The Rosie Project series was launched with Graeme Simsion's debut novel, The Rosie Project, published in 2013. The novel was inspired by Simsion's fascination with social behavior and his own experience as a scientist with a background in genetics. The story revolves around Don Tillman, who embarks on a quest to find a suitable life partner using a scientifically designed questionnaire, only to meet Rosie Jarman, who is everything he's not looking for.

The success of The Rosie Project led to the publication of sequels, with The Rosie Effect published in 2014 and subsequent works expanding the universe of these beloved characters. The series is praised for its humor, warmth, and honest depiction of neurodiversity, particularly characteristics associated with Asperger's syndrome.

Meet the Main Characters

Don Tillman

- A genetics professor with a highly logical and methodical approach to life.
- Socially awkward, often misunderstood, but kind-hearted.
- His journey involves personal growth and understanding human relationships beyond logic.

Rosie Jarman

- An engaging, spontaneous bartender and barista.
- Outgoing, compassionate, and adventurous.
- Becomes Don's wife and partner in navigating life's unpredictable challenges.

Supporting Characters

- Gene, Don's best friend and confidant.
- Claudia, Rosie's sister.
- Other friends and colleagues who add depth and humor to the narrative.

Plot Summary of The Rosie Effect

The Rosie Effect picks up where The Rosie Project left off. Don and Rosie are married and living in New York City. Don's life takes an unexpected turn when Rosie becomes pregnant, setting off a series of humorous and heartfelt events as they prepare for parenthood.

Key plot points include:

- Don's struggle to adapt to the impending responsibilities of fatherhood.
- Rosie's career aspirations and her desire to pursue a PhD.
- Don's attempts to navigate uncharted waters of relationships, family, and career.
- The couple's humorous misunderstandings and tender moments as they confront life's surprises.

The novel explores themes of change, acceptance, and the importance of embracing imperfections, all told with Simion's signature wit and charm.

Themes and Messages in The Rosie Series

Neurodiversity and Personal Growth

The series offers an empathetic portrayal of neurodiverse characters, emphasizing that differences are integral to human diversity. Don's character exemplifies how embracing one's unique traits can lead to personal happiness and meaningful relationships.

The Power of Love and Connection

At its core, the series highlights that love transcends logic and societal expectations. Rosie's spontaneous nature complements Don's structured personality, illustrating that opposites can

attract and thrive together.

Humor and Wit as a Narrative Device

Simson's humorous writing style makes complex themes accessible and engaging. The series uses comedy to explore serious topics like family, identity, and acceptance.

Why Read The Rosie Project Series?

- **Unique Protagonists:** The series features memorable characters whose quirks challenge stereotypes and inspire empathy.
- **Humor and Heart:** A perfect blend of comedy and emotional depth appeals to a broad readership.
- **Relatable Themes:** Love, family, personal growth, and acceptance resonate universally.
- **Modern Romantic Comedy:** Fresh, witty, and heartwarming storytelling that stands out in contemporary fiction.

Impact and Reception

The Rosie Project series has received critical acclaim and commercial success. Critics praise Simson's sharp wit and the series' ability to handle complex societal issues with humor and sensitivity. Readers have appreciated the characters' authenticity and the series' positive message about neurodiversity and acceptance.

The books have also been adapted into other media formats, including stage plays and potential film adaptations, further illustrating their cultural impact.

Where to Start with The Rosie Project Series

For those new to the series, starting with *The Rosie Project* is recommended, as it introduces the main characters and sets the tone for the subsequent books. Afterward, *The Rosie Effect* continues the story with new challenges and developments. Fans who enjoy heartfelt comedy and character-driven stories will find the series both entertaining and inspiring.

Conclusion

The Rosie Effect: The Rosie Project Series offers a compelling look at love, life, and personal growth through the lens of characters who are both relatable and inspiring. Graeme Simson's masterful storytelling combines humor, intelligence, and warmth, making this series a standout in contemporary fiction. Whether you're interested in romantic comedies, stories about neurodiversity,

or simply searching for a series that makes you laugh and think, The Rosie Project series is a perfect choice. Dive into Don and Rosie's world and discover how love and acceptance can transform even the most structured life into something extraordinary.

The Rosie Effect: An In-Depth Exploration of The Rosie Project Series

Since its debut, The Rosie Effect has captivated readers worldwide, cementing its place as a beloved installment in the The Rosie Project series. Known for its witty humor, endearing characters, and insightful exploration of love and life, The Rosie Effect continues the journey of Don Tillman and Rosie Jarman with charm and depth. In this guide, we'll delve into the series' background, themes, characters, and its significance within contemporary fiction, providing a comprehensive analysis for fans and newcomers alike.

Introduction to The Rosie Effect and The Rosie Project Series

The Rosie Effect is the second novel in Graeme Simsion's The Rosie Project series, following the immensely popular The Rosie Project, which was published in 2013. The series is characterized by its humorous, heartfelt storytelling, centered around Don Tillman—a genetics professor with social difficulties—and Rosie Jarman, a free-spirited bartender and aspiring geneticist.

The series explores themes of love, acceptance, personal growth, and the unpredictability of life through the lens of Don's unique worldview. While The Rosie Project introduces us to Don's meticulous, logical approach to life—particularly his quest to find a suitable wife—The Rosie Effect picks up as Don and Rosie's relationship faces new challenges, especially as they navigate impending parenthood.

The Evolution of Characters in the Series

Don Tillman: The Rational Everyman

Don Tillman remains the series' protagonist, characterized by his logical mind and social naivety. His rigid routines and scientific approach to life often lead to humorous situations, but they also serve as a lens through which the reader examines human complexity and emotional intelligence. Over the series, Don evolves from a man who sees the world purely through facts and data to someone who begins to understand the importance of emotional connection and vulnerability.

Key traits:

- Highly organized and structured
- Struggles with social cues

- Deeply honest and sincere
- Gradually becomes more emotionally aware

Rosie Jarman: The Free Spirit

Rosie is the catalyst for Don's personal growth. Her spontaneous, empathetic nature contrasts with Don's methodical mindset, creating a dynamic that fuels much of the series' humor and heart. As a geneticist and a woman committed to her dreams, Rosie embodies independence and resilience.

Key traits:

- Warm and compassionate
- Adventurous and independent
- Embraces chaos and unpredictability
- Loyal and caring

Supporting Characters

The series also features a memorable cast that adds richness and humor, including:

- Gene, Don's father, whose unconventional parenting style influences Don's worldview.
- Claudia, Rosie's best friend, offering support and comic relief.
- Other colleagues and friends who highlight various aspects of modern life and relationships.

Thematic Deep Dive: Love, Logic, and Life's Unpredictability

- Love and Relationships

At its core, the series is a love story—one that challenges traditional notions of romance through Don and Rosie's unconventional relationship. The narrative explores themes of:

- Compatibility beyond logical matching
- The importance of emotional intelligence
- Overcoming personal insecurities

The Rosie Effect particularly emphasizes how love can be messy, unpredictable, and transformative, even for someone as structured as Don.

- Personal Growth and Self-Discovery

Throughout the series, Don's journey is about breaking free from his self-imposed limitations. His willingness to grow, adapt, and embrace uncertainty reflects a broader message about resilience and openness.

- Humor and Humanity

Simsion's signature humor—dry, witty, and sometimes awkward—serves as a vehicle to explore complex human emotions. The series balances comedy with heartfelt moments, making the characters' struggles relatable and authentic.

Plot Overview of The Rosie Effect

The Rosie Effect picks up where The Rosie Project left off, with Don and Rosie now married and expecting their first child. The novel navigates the complexities of impending parenthood, Don's attempts to adapt to his new role, and the chaos that ensues.

Major plot points include:

- Don's struggle to prepare for fatherhood using his logical methods
- Rosie's career ambitions and their impact on their relationship
- Unexpected life events that test their bond
- Don's internal conflict between his routines and the new responsibilities

The narrative culminates in Don's realization that love and life are inherently unpredictable, and that embracing uncertainty is part of the human experience.

Literary Style and Tone

Graeme Simsion's writing style in the series is characterized by clarity, wit, and a compassionate tone. His depiction of Don's internal monologue is both humorous and insightful, making complex emotional states accessible and engaging.

Key stylistic features include:

- Use of dry humor and irony
- Sharp dialogue that reveals character personality

- Empathy-driven storytelling that celebrates human imperfection

The tone remains lighthearted yet meaningful, appealing to readers seeking both entertainment and reflection.

The Series? Impact and Reception

The Rosie Project and The Rosie Effect have garnered critical acclaim and a dedicated fanbase. The series is praised for:

- Unique protagonist with neurodiverse traits
- Authentic portrayal of love and marriage
- Clever blending of humor and heartfelt emotion
- Engaging narrative that appeals to a wide audience

Moreover, the series has sparked conversations about neurodiversity, emotional intelligence, and the importance of embracing differences.

Why Read The Rosie Effect and The Rosie Project Series?

For fans of romantic comedies, character-driven stories, and humor with depth, this series offers a refreshing perspective. It challenges stereotypes about love and relationships while delivering plenty of laugh-out-loud moments.

Key reasons to dive into the series include:

- Rich character development
- Thought-provoking themes
- Relatable portrayal of imperfect human beings
- An uplifting message about growth and acceptance

Final Thoughts: The Series? Legacy

The Rosie Project series stands out in contemporary fiction for its blend of humor, heart, and authenticity. The Rosie Effect continues this tradition, emphasizing that life's unpredictability can ultimately lead to growth, happiness, and deeper understanding.

Whether you're a reader interested in exploring neurodiversity, a fan of romantic comedies, or someone seeking a story about personal transformation, this series offers valuable insights wrapped

in engaging storytelling. As Don and Rosie's journey illustrates, love isn't always tidy, but it's always worth the effort.

In summary, The Rosie Effect and the entire The Rosie Project series serve as a testament to the power of love, resilience, and the human capacity to adapt. They remind us that, despite our routines and plans, life's surprises often lead us exactly where we need to be.

Question What is 'The Rosie Effect' about in the context of The Rosie Project series? 'The Rosie Effect' is the sequel to 'The Rosie Project,' following Don Tillman as he navigates the challenges of marriage, parenthood, and personal growth while trying to maintain his unconventional approach to life and relationships. How does 'The Rosie Effect' develop the main characters from The Rosie Project series? In 'The Rosie Effect,' characters like Don and Rosie are further explored as they face new life challenges, revealing deeper layers of their personalities, struggles, and the evolving dynamics of their relationship, making them more relatable and complex. Is 'The Rosie Effect' suitable for readers who enjoyed the first book in The Rosie Project series? Yes, 'The Rosie Effect' continues the humorous and heartfelt tone of the first book, making it an engaging read for fans who appreciated the quirky characters, witty narration, and themes of love and personal growth. What are some key themes explored in 'The Rosie Effect' that resonate with current societal issues? 'The Rosie Effect' touches on themes such as marriage, family dynamics, neurodiversity, and life's unpredictability, offering insights into relationships and personal resilience amidst life-changing events. Are there plans for further books in The Rosie Project series after 'The Rosie Effect'? As of now, there haven't been official announcements about additional books in The Rosie Project series beyond 'The Rosie Effect,' but fans continue to hope for more stories featuring Don and Rosie's adventures.

Related keywords: Rosie Project, Graeme Simsion, Don Tillman, romantic comedy, neurodiversity, marriage, Australian fiction, contemporary romance, humorous novel, character-driven stories

Theory And Application Of Infinite Series Dover B

Theory and application of infinite series dover b

Infinite series are fundamental constructs in mathematics that have profound implications across various scientific fields, including engineering, physics, computer science, and economics. The book Theory and Application of Infinite Series by Dover Publications (commonly referenced as Dover B) provides an in-depth exploration of the theoretical foundations and practical uses of infinite series. This article aims to delve into the core concepts, mathematical foundations, and diverse applications of infinite series, as well as highlighting key takeaways from Dover B.

Understanding Infinite Series

Infinite series are sums of infinitely many terms, typically expressed as:

$$S = \sum_{n=1}^{\infty} a_n$$

where a_n represents the n th term of the series. The primary questions surrounding infinite series involve convergence: does the sum approach a finite value as the number of terms increases?

Convergence and Divergence

- **Convergence:** An infinite series converges if the sequence of its partial sums approaches a finite limit.
- **Divergence:** If the partial sums do not settle to a finite value, the series diverges.

Understanding whether a series converges or diverges is crucial for its application in solving real-world problems.

Fundamental Concepts in Infinite Series (Dover B)

Dover B systematically introduces the fundamental concepts necessary for studying infinite series, including:

1. Geometric Series

A geometric series is of the form:

$$\sum_{n=0}^{\infty} ar^n$$

where a is the first term and r is the common ratio.

- **Convergence Criterion:** The series converges if $|r| < 1$.

$$S = \frac{a}{1 - r}$$

- **Applications:** calculations of compound interest, population growth models, and signal processing.

2. p-Series and Comparison Tests

- p-Series: Series of the form $\sum_{n=1}^{\infty} \frac{1}{n^p}$. Converges if $(p > 1)$, diverges otherwise.
- Comparison Test: Used to determine convergence by comparing with known series.

3. Alternating Series

Series with alternating signs, such as:

$$\sum_{n=1}^{\infty} (-1)^{n+1} a_n$$

which converge under specific conditions, notably the Alternating Series Test.

Methods for Testing Series Convergence

Dover B emphasizes various techniques to determine the behavior of series:

1. The Ratio Test

Calculates:

$$L = \lim_{n \rightarrow \infty} \left| \frac{a_{n+1}}{a_n} \right|$$

- Converges if: $(L < 1)$
- Diverges if: $(L > 1)$
- Inconclusive if: $(L = 1)$

2. The Root Test

Considers:

$$L = \lim_{n \rightarrow \infty} \sqrt[n]{|a_n|}$$

Similar criteria as the Ratio Test.

3. Integral Test

Applicable when $(a_n = f(n))$ is positive, decreasing, and continuous, relating the series to an

improper integral:

$$\int_1^{\infty} f(x) \, dx$$

- Converges if: the integral converges
- Diverges if: the integral diverges

Power Series and Their Applications

Power series are infinite series of the form:

$$\sum_{n=0}^{\infty} c_n (x - a)^n$$

which are foundational in representing functions and solving differential equations.

Properties of Power Series

- Radius of Convergence: the range of (x) for which the series converges.
- Analytic Functions: many functions can be expressed as power series within their radius of convergence.

Applications of Power Series

- Approximate functions via Taylor and Maclaurin series.
- Numerical analysis and computation.
- Solving differential equations analytically.

Fourier Series and Signal Processing

Dover B dedicates significant attention to Fourier series, which express periodic functions as sums of sines and cosines:

$$f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos nx + b_n \sin nx \right)$$

Applications in Engineering

- Signal analysis and filtering.

- Image processing.
- Heat transfer and wave propagation.

Key Concepts

- Fourier coefficients (a_n, b_n) determine the amplitude of each frequency component.
- Convergence properties depend on the function's smoothness.

Applications of Infinite Series in Real-World Problems

Infinite series underpin a multitude of practical applications across various disciplines:

1. Numerical Methods

- Series expansions enable approximation of complex functions.
- Used in algorithms for computing functions like exponential, logarithms, and trigonometric functions.

2. Physics and Engineering

- Analyzing oscillations, wave phenomena, and quantum mechanics.
- Modeling heat conduction via Fourier series.

3. Economics and Finance

- Present value calculations involving infinite cash flows.
- Modeling economic growth with geometric series.

4. Computer Science

- Algorithm analysis, especially recursive algorithms.
- Series approximations for computer graphics and simulations.

Advanced Topics and Modern Applications

Dover B also explores advanced topics that extend the classical theory of infinite series:

1. Summability Methods

Techniques like Cesàro summation allow assigning sums to divergent series in certain contexts.

2. Analytic Continuation

Extending functions defined by power series beyond their radius of convergence.

3. Zeta Function and Number Theory

Infinite series are central to understanding properties of prime numbers and complex analysis.

Conclusion: The Significance of Infinite Series

The theory and application of infinite series, as detailed in Dover B, serve as a cornerstone of mathematical analysis. Their versatility allows mathematicians and scientists to approximate, model, and solve complex problems across disciplines. Whether in theoretical physics, engineering, economics, or computational sciences, the concepts of convergence, series expansions, and their practical applications continue to be invaluable tools.

Understanding infinite series empowers practitioners to develop accurate models, perform precise calculations, and explore the deep structure of mathematical functions. Dover B's comprehensive treatment provides readers with both a solid theoretical foundation and practical insights, making it an essential resource for students, educators, and professionals engaged in applied mathematics.

Keywords: infinite series, convergence, divergence, geometric series, power series, Fourier series, numerical methods, applications, Dover B, mathematical analysis

Theory and Application of Infinite Series Dover B

Infinite series are fundamental constructs in mathematics that have profound implications across numerous scientific and engineering disciplines. Their study, particularly through the lens of Dover Publications' renowned texts, offers both a deep theoretical understanding and practical tools for tackling complex problems. This article explores the core principles behind infinite series, examines their theoretical underpinnings, and highlights their diverse applications, providing insights into why they are indispensable in modern mathematics.

Understanding Infinite Series: Foundations and Definitions

At its core, an infinite series is the sum of infinitely many terms arranged in a sequence. Formally, if $\{a_n\}$ is a sequence of real or complex numbers, then the infinite series is written as:

$$\sum_{n=1}^{\infty} a_n$$

$$S = \sum_{n=1}^{\infty} a_n$$

$$\sum_{n=1}^{\infty} a_n$$

The primary question mathematicians ask about such series is whether they converge or diverge. Convergence indicates that the partial sums approach a finite limit as the number of terms grows infinitely large, whereas divergence means the partial sums do not settle to a finite value.

Key Concepts:

- Partial Sums: $(S_N = \sum_{n=1}^N a_n)$
- Limit of Partial Sums: $(\lim_{N \rightarrow \infty} S_N)$

If this limit exists and is finite, the series converges to that limit; otherwise, it diverges.

Theoretical Foundations of Infinite Series

Convergence Tests and Criteria

Establishing whether an infinite series converges is foundational in analysis. Several tests aid in this determination:

- The Comparison Test: Compares the series with a known convergent or divergent series.
- The Ratio Test: Uses the limit of the ratio of successive terms to assess convergence.
- The Root Test: Considers the n th root of the absolute value of terms.
- The Integral Test: Connects the series to an improper integral to analyze convergence.
- Alternating Series Test: Specifically used for series with alternating signs, ensuring convergence if terms decrease in magnitude to zero.

Power Series and Radius of Convergence

A special class of infinite series is power series, expressed as:

$$\sum_{n=0}^{\infty} c_n (x - a)^n$$

$$\sum_{n=0}^{\infty} c_n (x - a)^n$$

\]

where $\{c_n\}$ are coefficients, and a is the center of the series. Power series are pivotal because they allow for the representation of functions as infinite sums, with convergence depending on the radius of convergence.

The radius of convergence R determines the interval where the series converges and can be found using the Root or Ratio test. Within this radius, the power series converges uniformly, enabling differentiation and integration term-by-term.

Summation of Infinite Series: Techniques and Formulas

Some series have well-known sums, such as geometric series:

\[

$$\sum_{n=0}^{\infty} r^n = \frac{1}{1-r}, \quad |r| < 1$$

\]

Other series are more complex, involving special functions like the zeta function, or require advanced techniques such as generating functions or contour integration.

Applications of Infinite Series in Science and Engineering

The theoretical understanding of infinite series is not merely an academic pursuit; it forms the backbone of numerous practical applications.

- Signal Processing and Fourier Series

One of the most prominent applications is in signal analysis, where functions representing signals are expressed as sums of sinusoidal components via Fourier series:

\[

$$f(t) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos nt + b_n \sin nt \right)$$

\]

This decomposition allows engineers to analyze, filter, and reconstruct signals efficiently. Infinite series facilitate the transformation of complex, time-domain signals into frequency components,

enabling technologies like telecommunications, audio processing, and image compression.

- Numerical Analysis and Approximation

Infinite series serve as powerful tools for approximating functions that are otherwise difficult to compute directly. Taylor and Maclaurin series expand functions into polynomials:

\[

$$f(x) = \sum_{n=0}^{\infty} \frac{f^{(n)}(a)}{n!} (x - a)^n$$

\]

This approach underpins many numerical algorithms in scientific computing, allowing for high-precision approximations of exponential, logarithmic, trigonometric, and other transcendental functions vital in simulations and modeling.

- Quantum Physics and Series Solutions

In quantum mechanics, solutions to differential equations like the Schrödinger equation often involve infinite series. Power series solutions help analyze potential wells, atomic orbitals, and scattering phenomena, where exact solutions are elusive. The use of series expansions simplifies complex wavefunctions into manageable computational forms.

- Economics and Financial Mathematics

Infinite series underpin models of compound interest, options pricing, and risk assessment. For example, the valuation of perpetuities involves the sum of an infinite geometric series, capturing the essence of continuous cash flows over an indefinite period.

Deep Dive: Dover's Contributions to Infinite Series Education

Dover Publications has long been a trusted source for classic mathematical texts, notably its comprehensive works on series and analysis. Their publications distill complex concepts into accessible formats, making the theory of infinite series approachable for students and professionals alike.

Key features of Dover's series-focused texts include:

- Rigorous yet clear explanations of convergence criteria
- Historical context of series development
- Extensive problem sets for mastery
- Coverage of special series such as Fibonacci, Bernoulli, and Fourier series

These resources have helped democratize advanced mathematical knowledge, fostering a deeper understanding of infinite series' role across disciplines.

Challenges and Frontiers in Infinite Series Research

While the theory of infinite series is well-established, ongoing research explores:

- Divergent Series: Methods like Borel summation extend the notion of summation beyond convergence, with implications in quantum field theory.
- Series Acceleration Techniques: Improving convergence rates for computational efficiency.
- Multidimensional Series: Extending concepts to multivariate functions and series in higher dimensions.
- Series in Non-Standard Analysis: Exploring series within alternative frameworks that challenge traditional notions of limits.

These frontiers continue to deepen our understanding and expand the utility of infinite series in solving cutting-edge problems.

Conclusion: The Enduring Significance of Infinite Series

The theory and application of infinite series, as expounded in Dover publications and beyond, exemplify the elegance and power of mathematical abstraction. From analyzing signals and approximating functions to exploring the quantum realm and modeling economic phenomena, infinite series serve as a bridge between pure theory and tangible application.

Their study not only enriches our mathematical knowledge but also drives innovation across science and engineering. As research advances and computational methods evolve, the significance of infinite series is poised to grow, continuing to illuminate the complexities of the universe in elegant, infinite sums.

Question What is the primary focus of 'Theory and Application of Infinite Series' by Dover B? The book primarily explores the mathematical foundations, convergence criteria, and practical applications of infinite series in various fields such as analysis and physics. How does Dover B approach the convergence of infinite series? Dover B systematically introduces convergence tests like the comparison test, ratio test, root test, and alternating series test, providing rigorous proofs

and intuitive explanations. Can Dover B's book be used for advanced undergraduate studies? Yes, the book is suitable for advanced undergraduates and beginning graduate students, offering a thorough treatment of infinite series with applications and exercises. What types of applications of infinite series are covered in Dover B? The book covers applications in mathematical analysis, approximation theory, Fourier series, and solutions to differential equations, demonstrating the practical significance of infinite series. Does Dover B include numerical methods related to infinite series? Yes, it discusses numerical techniques for summing series and approximating functions, emphasizing the computational aspects of infinite series. Are there any modern topics or recent developments in infinite series covered in Dover B? While the core focuses on classical theory, the book also touches on contemporary topics like power series, uniform convergence, and their role in functional analysis. How does Dover B differentiate itself from other texts on infinite series? Dover B combines rigorous theoretical treatment with practical applications, clear explanations, and a wide range of exercises, making complex concepts accessible. Is Dover B suitable for self-study on the topic of infinite series? Absolutely, the book's comprehensive coverage, detailed proofs, and exercises make it an excellent resource for self-learners interested in infinite series.

Related keywords: infinite series, mathematical analysis, convergence tests, power series, summation methods, series approximation, calculus, functional analysis, infinite sums, mathematical textbooks

Read the full article online: [Theory and application of infinite series dover b](#)