

tricks in vedic maths

Tricks in Vedic Maths have gained immense popularity in recent years, especially among students and competitive exam aspirants looking for efficient ways to solve complex mathematical problems. Vedic Maths, derived from ancient Indian scriptures known as the Vedas, presents a unique system of mathematics that simplifies calculations through a series of techniques and shortcuts. This article aims to explore various tricks in Vedic Maths, their applications, benefits, and how they can be utilized to enhance numerical proficiency.

Understanding Vedic Maths

Vedic Maths is a collection of techniques that originated in ancient India, specifically from the Vedic texts. It comprises 16 sutras (aphorisms) and 13 sub-sutras that provide a systematic approach to solving mathematical problems. The beauty of Vedic Maths lies in its ability to offer multiple methods for solving the same problem, thus allowing flexibility and creativity in mathematical thinking.

Key Features of Vedic Maths

1. **Speed:** Vedic Maths enables rapid calculations, making it an ideal tool for time-bound exams.
2. **Simplicity:** The methods are often simpler than conventional techniques, making them easier to understand.
3. **Flexibility:** Multiple approaches to a single problem allow students to choose the method they find easiest.
4. **Mental Calculation:** Many techniques are designed for mental math, enhancing cognitive skills and confidence.

Core Techniques in Vedic Maths

Vedic Maths encompasses a variety of techniques that can be applied to basic arithmetic, algebra, geometry, and more. Here are some core tricks that can significantly improve calculation speed and efficiency:

1. The Sutra Method

The 16 sutras serve as the foundation for various calculations. Some popular sutras include:

- Nikhilam Sutra: This is used for multiplication and is particularly effective for numbers close to a base (like 10, 100, etc.).
- For example, to multiply 98 by 97:
- Subtract each number from 100: $(100 - 98 = 2)$ and $(100 - 97 = 3)$.
- Subtract crosswise: $(98 - 3 = 95)$.
- Multiply the differences: $(2 \times 3 = 6)$.
- Therefore, $(98 \times 97 = 9506)$.
- Urdhva-Tiryagbhyam: This is a vertical and crosswise method used for multiplication of larger numbers.
- If you want to multiply 12 by 13:
- Multiply the digits vertically $(1 \times 1 = 1)$.
- Cross multiply $(1 \times 3 + 2 \times 1 = 5)$.
- Multiply the last digits $(2 \times 3 = 6)$.
- Combine results to get 156.

2. Squaring Numbers

Squaring numbers can be done quickly using specific patterns. The sutra for squaring a number ending in 5 is particularly useful:

- Number ending in 5: For any number ending in 5, the square can be calculated as follows:
- Take the number without the last digit, multiply it by itself plus one, and append 25.
- For example, to calculate (25^2) :
- $(2 \times (2+1) = 6)$ and append 25 gives (625) .

3. Division Tricks

Vedic Maths offers handy tricks for division as well:

- Dividing by 9: To divide a number by 9, you can use the digit sum method.
- For example, to divide 108 by 9:
- The sum of digits of 108 is $(1 + 0 + 8 = 9)$.
- Since 9 is divisible by 9, $(108 / 9 = 12)$.
- Dividing by 11: To divide by 11, you can use the alternating sum method.
- For example, for (121) :
- The alternating sum is $(1 - 2 + 1 = 0)$.
- Since the result is 0, (121) is divisible by (11) .

Applications of Vedic Maths

Vedic Maths can be applied in various fields, including:

1. Academic Excellence

Students can use Vedic Maths techniques to improve their arithmetic skills, leading to better performance in exams. It helps in:

- Quick calculations during math tests.
- Enhanced understanding of mathematical concepts.
- Increased confidence in handling numbers.

2. Competitive Exams

For competitive exams like SAT, GRE, and SSC, Vedic Maths can be a game-changer. The speed and accuracy gained from these techniques can:

- Save valuable time during quantitative sections.
- Reduce errors in calculations.
- Provide a competitive edge over peers.

3. Everyday Calculations

Vedic Maths can also simplify everyday calculations:

- Budgeting: Quickly calculating expenses and savings.
- Shopping: Rapidly determining costs and discounts.
- Cooking: Adjusting recipes and ingredient measurements.

Benefits of Learning Vedic Maths

Incorporating Vedic Maths into daily practice has numerous benefits:

1. Improved Mental Agility: Regular practice enhances cognitive skills, helping in problem-solving and

logical reasoning.

2. **Boosted Confidence:** Mastering these techniques builds self-esteem and reduces math anxiety.

3. **Increased Interest in Mathematics:** The fun and engaging nature of Vedic Maths can spark a love for math among students.

4. **Enhanced Memory:** The techniques often rely on patterns and relationships, which can improve memory retention.

Conclusion

Tricks in Vedic Maths offer powerful tools for simplifying calculations and enhancing mathematical understanding. By mastering these techniques, students and professionals alike can unlock a new level of efficiency in their numerical tasks. The ability to perform rapid mental calculations not only aids in academic and competitive success but also enriches everyday life. As Vedic Maths continues to gain recognition worldwide, its timeless wisdom remains relevant in our fast-paced, number-driven society. Embracing Vedic Maths can be an empowering journey towards mathematical mastery and confidence.

Frequently Asked Questions

What are Vedic Maths tricks?

Vedic Maths tricks are methods derived from ancient Indian mathematics that simplify calculations, allowing for faster problem-solving and mental arithmetic.

How can Vedic Maths improve my calculation speed?

Vedic Maths techniques use shortcuts and patterns that minimize the number of steps needed to solve problems, significantly increasing calculation speed.

Is Vedic Maths useful for competitive exams?

Yes, Vedic Maths is highly beneficial for competitive exams as it helps in solving problems quickly and accurately, giving students an edge over traditional methods.

What are some basic Vedic Maths tricks for addition?

One basic trick is the 'Nikhilam Sutra', which allows you to add numbers by rounding them to the nearest base and then adjusting for the difference.

Can Vedic Maths be learned by anyone?

Absolutely! Vedic Maths can be learned by anyone, regardless of age or mathematical background, as it focuses on understanding rather than rote memorization.

What is the 'Vertically and Crosswise' method in Vedic Maths?

The 'Vertically and Crosswise' method is a technique used for multiplying two-digit numbers that simplifies the multiplication process by combining vertical and cross multiplication.

Are there any online resources for learning Vedic Maths?

Yes, numerous online courses, YouTube videos, and websites offer tutorials and resources for learning Vedic Maths, making it accessible to everyone.

How does Vedic Maths handle squaring numbers?

Vedic Maths provides specific sutras for squaring numbers, such as the 'Urdhva-Tiryagbhyam' method, which allows for quick calculations of squares of two-digit numbers.

Can Vedic Maths be applied to geometry and algebra?

Yes, Vedic Maths techniques can be extended to geometry and algebra, providing efficient methods for solving equations and geometric problems.

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