

VEDIC MATHEMATICS

• INTRODUCTION

Vedic maths is a system of mathematics that was discovered by an Indian mathematician, **Jagadguru Shri Bharathi Krishna Tirtha ji** during A.D. 1911 and 1918. He printed his findings in a Vedic Mathematics book – Tirtha ji Maharaj. Vedic mathematics is also called mental mathematics in the mathematical world. We can say that the brain's capacity and its speed of calculations increases fivefold with the practice of Vedic maths.

- **Vedic Maths** or **Vedic Mathematics** is a collection of Methods or Sutras to solve numerical computations quickly and faster. It consists of 16 Sutras called Formulae and 13 sub-sutras called Sub Formulae, which can be applied to the solving of problems in arithmetic, algebra, geometry, calculus, conics, etc. All the sutras and sub sutras of Vedic maths help to perform mathematical operations quickly and accurately.
- He did his studies from National College at Trichinopoly. He then joined Church Missionary Society College, thereby Hindu College at Tirunelveli. In 1899 he cleared his matric exams from Madras University.

- He was very good at Sanskrit Language. Madras Sanskrit Association gave him the title “ Sarasvati” at the age of 16. He passed his BA exam in 1902 when he was 18 years old. In 1903 he appeared for MA exam from the Mumbai Center of Americal College of Sciences, Rochester , New York.

• Achievements

- Madras Sanskrit Association gave him the title “ Sarasvati” at the age of 16
- After his study of Advaita Vedanta and Shastras, on 4 July 1919 he got the title “Swami Bharati Krishna Tirtha” from Jagadguru Shankaracharya Trivikrama Tirtha
- He was made Shankaracharya of Govardhan Math in 1925.
- He also headed National College at Raja Mahendri for some time.

• Maths Sutras

Jagadguru Shri Bharathi Krishna Tirtha ji given 16 sutras and 12 sub-sutras, which can be applied to the solving of problems in arithmetic, algebra, geometry, calculus, conics, etc. All the sutras and sub sutras of Vedic maths help to perform mathematical operations quickly and accurately they are :-

S.N O	SUTRAS	SUB-SUTRAS
1	EkadhikenPurvena	Anurupyena
2	NikhilamNavatacharamam Dasatah	Sisyate Sesajnah
3	Urdhva-tiryagbhyam	Adyamadyenantya-mantylene
4	Paravartya Yojayet	Kevalaih Saptakam Gunyat
5	Sunyma Samyasamuchaye	Vestanam
6	(Anurupye) Sunyamanyat	Yavadunam Tavadunam
7	Sankalana-vyavakalamnabyam	Yavadunam Tavadunikrtya Varganca Yojayet
8	Puranapuranaabhyam	Antyayoradaskaepi
9	Chalana-Kalanaabhyam	Antyayoreva
10	Yavadunam	Samuccayagunita
11	Vyastisamastih	Lopanaasthapanabhyam
12	Sesanyankena Caramena	Vilokanam
13	Sopantyadvayamantyam	Gunitasamuccayah Samuccayagunitah
14	Ekanyunena Purvena	

15	Gunitasamuccayah	
16	Gunakasamuccayah	

• **Benefits Of Vedic Maths**

- ✓ Calculations become easy and short.
- ✓ Simplifications can be done in less time.
- ✓ Students undergo less mental stress.
- ✓ Results obtained by sutra-based methods can be easily verified with normal procedures.
- ✓ The possibility of committing errors by students using these sutras is negligible
- ✓ The use of sutras helps students to improve their knowledge and interest in the subject of mathematics.
- ✓ Vedic maths helps to solve hard problems using mental calculations.

Vedic Maths Addition Tricks

We have various tricks to perform the addition in Vedic maths. In this section, you will learn how to add numbers using one of the sutras called Ekadhikena Purvena with the help of an example.

Example:

Compute: $98765 + 63217 + 89522 + 60543$

Or

By Sutra Ekadhikena Purvena, add 98765, 63217, 89522, and 60543.

Solution:

Steps for adding numbers using Ekadhiken Purvena Sutra:

Step 1: Write the given numbers in rows and columns by giving some space between the digits.

Step 2: Column I (from the right side), add the first two digits, $5 + 7 = 12$

Step 3: Mark Ekadhika dot(.) on 1, (digit which is next to 7 in column II)

Step 4: Now, start again adding with 2;

$$2 + 2 = 4$$

Again start with 4 such that $4 + 3 = 7$

Step 5: Write 7 below at the answer's place

Step 6: Add the remaining columns in the same way.

Thus, the final answer will be obtained as:

- **Vedic Maths Subtraction Tricks**

Subtraction can be performed using 4 or 5 different methods in Vedic mathematics, and the best, as well as easiest way to subtract the numbers, is the Sutra Ekadhiken Purvena and Param Mitra Unka (the best friend). Here, two digits

are called each other's best friends if their sum is equal to 10. For example, 3 is the best friend of 7 since $3 + 7 = 10$.

Go through the example given below to understand the subtraction of numbers by Sutra Ekadhiken Purvena.

Question:

Subtract 389 from 746.

Solution:

Steps for subtraction in Sutra Ekadhiken Purvena:

Step 1: Write the given numbers in rows and columns by giving some space between the digits.

Step 2: Consider column I (from the right end), 9 is greater than 6 so we cannot subtract it from 6.

1 is the best friend of 9 and add 1 to 6, i.e. $1 + 6 = 7$. So write 7 in the answer place and mark Ekadhika dot(.) on 8, which is in the same row of column II such that it becomes 9 (as $8 + 1 = 9$).

Here, dot(.) on the number represents one more than the previous number.

Step 3: Similarly, we need to subtract the remaining numbers. Thus, the answer will be:

357

• Conclusion

Swami Bharti Krishna Tirath is the father of vedic maths. The book written by him has benefitted millions of learners across the world. Students from the age of 8 years upto the age of 80 can learn vedic maths. Children learn for competitive exams and scoring high in school maths. Winaum Learning has spearheaded to create awareness of Vedic Maths and has contributed to thousand of children in India and Abroad for Vedic Maths. The fast calculating techniques has really helped children. It reduces their rough work and saves time in doing maths. Children can attend the Vedic Maths course and complete it 8-12 months of time. Adults can complete the course in 3-4 months.

