



Vedic mathematics is one of the ancient methods of India. This method can help in solving complex mathematical calculations in a simple and intuitive way shortly within time. The credit for the development of this method goes to Swami Bharti Krishna Thirtha.

Swami Bharti Krishna Thirtha was the Shankaracharya of Jagannath Puri. He surprised the whole world by discovering Vedic Mathematics. According to him, Vedic mathematics develops both sides of our brain- left and right (i.e. rationality and creativity) equally.

Formula - Ekadhiken Purven

Meaning - Preceding numbers

In this method, by putting dot (.) to a number, the value of that number increases by one. It means that the value of that digit becomes equal to its subsequent number.

Example-

$$3 = 3 + 1 = 4$$

$$5 = 5 + 1 = 6$$

$$8 = 7 + 1 = 8$$

Addition

Example- Find out the sum of 8, 6, 5.

Solution -

Step 1-

$$\begin{array}{r|l} 8 & 4 \\ .6 & \\ \hline 5 & \\ \hline \end{array}$$

Add 6 to 8.

$$8 + 6 = 14$$

The value of 14 is greater than 9.

Hence put a dot (.) on left side of 6.



Step 2- Now let's add the next unit number which is 5 to the unit 4

$$\begin{array}{r|l} 8 & 4 \\ \cdot & \\ \downarrow & 6 \\ & 5 \\ \hline 1 & 9 \end{array}$$

$$4 + 5 = 9$$

Example -2 Find out the sum of 7,5,8 and 2.

Step 1- ($7 + 5 = 12$) (.) it has been written as a symbol)

$$\begin{array}{r|l} 7 & \\ \cdot & 5 \\ \cdot & 8 \\ \cdot & 2 \\ \hline & 2 \end{array}$$

$$4 + 5 = 9$$

$$(8 + 2 = 10) \quad (.)$$

$$(0 + 2 = 2)$$

Step 2-

$$\begin{array}{r|l} 7 & \\ \cdot & 5 \\ \cdot & 8 \\ \cdot & 2 \\ \hline 2 & 2 \end{array}$$

$$4 + 5 = 9$$

Example -3 Find out the sum of 56 and 27.

Solution-

$$\begin{array}{r} 56 \\ + 27 \\ \hline \hline \end{array}$$

First Column- Add unit to unit. $6 + 7 = 13$. Here the value of 13 is greater than 9. So we write first the unit number i.e. 3 of the sum 13 at the place of unit. And on the left side of 7, put the dot (.) on the digit 2 which is at the tens place.

Hence

$$\begin{array}{r} 56 \\ \cdot 27 \\ \hline 3 \end{array}$$



Second Column- Now add digits which are at the tens place.

$$5 + 2 = 5 + 3 = 8$$

Hence

$$\begin{array}{r} 5 \ 6 \\ 2 \ 7 \\ \hline 8 \ 3 \end{array}$$

Example-3

Find out the sum 843 and 169

Solution : 8 4 3

$$\begin{array}{r} 1 \ 6 \ 9 \\ \hline 1 \ 2 \end{array}$$

8 4 3

$$\begin{array}{r} 1 \ 6 \ 9 \\ \hline 1 \ 1 \ 2 \end{array}$$

8 4 3

$$\begin{array}{r} 1 \ 6 \ 9 \\ \hline 10 \ 1 \ 2 \end{array}$$

First Column $3 + 9 = 12$

Second Column $4 + 6 = 4 + 7 = 11$

Third Column $8 + 1 = 8 + 2 = 10$



1. Find out the sum of following numbers-

(a) 55 and 32

(b) 53 and 87

(c) 75 and 47

(d) 134 and 341

(e) 883 and 690

2. Solve -

(a) 2 4 3 7

$$\begin{array}{r} + \ 9 \ 2 \ 5 \ 6 \\ \hline \end{array}$$

(b) 5 8 7 6

$$\begin{array}{r} + \ 2 \ 4 \ 3 \ 8 \\ \hline \end{array}$$

(c) 8 9 2 6

$$\begin{array}{r} + \ 4 \ 3 \ 5 \ 7 \\ \hline \end{array}$$



Vedic Method of Addition and Subtraction

Let's find out the Complementary numbers (Param Mitra numbers) before using Complementary Formula (Param Mitra Sutra). If the sum of two numbers is ten, the numbers are Complementary (Param Mitra) to each other.

Digit	Param Mitra
1	9
2	8
3	7
4	6

5

5

Digit	Param Mitra
6	4
7	3
8	2
9	1

In this method when the digit below is greater than the digit above then we put one DOT on the digit below which is on the left of the lower digit and the Complementary of the lower digit is added with the digit above and written below at the place of the answer.

Example - $\begin{array}{r} 53 \\ - 36 \\ \hline \end{array}$

$\begin{array}{r} 53 \\ - 36 \\ \hline \end{array}$

$\begin{array}{r} 53 \\ - 36 \\ \hline 36 \\ \hline \end{array}$

7

$\begin{array}{r} 53 \\ - 36 \\ \hline 36 \\ \hline \end{array}$

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First column - Subtract the ones place digits.

(1) Here digit 3 given above is smaller than the digit 6 given below.

(2) Put one DOT on the left of digit 6.

(3) Add 4, the Complementary of 6 to the digit above and write at the place of the answer - $3 + 4 = 7$

Second column - Subtract the tens place digit.

(1) Here the digit 5 given above is greater than the digit 3 or 4. Hence, there is no need to use Complementary number.

(2) $5 - 4 = 1$

1. Do Self

$$\begin{array}{r} 87 \\ -58 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ -54 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 378 \\ -249 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 786 \\ -659 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 344 \\ -257 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 567 \\ -489 \\ \hline \\ \hline \end{array}$$

2. Subtract-

(a) 38 from 88

(b) 48 from 53

(c) 289 from 376

(d) 378 from 895

(e) 137 from 345

We have learnt-

- Students are able to solve addition and subtraction.
- Students are familiar with the use of dot (.).
- Students are able to solve problems with the help of Complementary numbers and formulas.

