Methods of Vedic Maths

You have already learnt addition, subtraction, multiplication and division. There are a few simple and interesting methods for this processes in Vedic Maths also. Here we will introduce them to you. Before knowing about these methods let us get acquainted with digits.

Digits (Ank)- 0,1,2,3,4,5,6,7,8,9. These are the ten digits. All the numbers are written using these digits.

Bijank- In Vedic Maths digits from 1 to 9 are called Bijank. To find out the Bijank of any number, the digit of the number are added till a single digit number is obtained.

For example -

To find out the Bijank of 35, we will add its digits.

3 + 5 = 8

So the Bijank of 35 is 8

Similarly -

Bijank of 97

9 + 7 = 16 but 16 has 2 digits So we will add these digits also

1 + 6 = 7

So the Bijank of 97 is 7

Param Mitra Ank-

Any 2 digits whose total is 10 are called Param Mitra of each other.

For example -

1 + 9 = 10 So 1 is Param Mitra of 9 and 9 is Param Mitra of 1 Now let's practice it a bit

Practice

Q. 1 - What are the digits that are used for writing numbers?

Q. 2 - Write the Bijank of following numbers.

(i) 12	(ii) 15	(iii) 17	(iv) 19	(v) 37
(vi) 44	(vii) 56	(viii) 67	(ix) 96	(x) 183

Q. 3 - Write the Param Mitra number of the following numbers.

(i) 2	(ii) 3	(iii)4	(iv) 5

Ekadhiken Poorven

The meaning of **Ekadhiken Poorven** is take one more than the previous number.

For example - 3 is the ekadhik of 2

Similarly - 4 is the ekadhik of 3

Can you tell the ekadhik of each digit from 1 to 9?

Eknyunen Poorven

The meaning of **Eknyunen Poorven** is take one less than the previous number.

For example - 7 is eknyune of 8, Similarly 4 is eknyune of 5

Now you tell the eknyune of all the digit from 1 to 9.

In the methods of Vedic Maths, Ekadhiken Poorven and Eknyunen Poorven are used of many places.

Now tell –

What numbers will you get from the following numbers by doing Ekadhik?

(i) 22 (ii) 43 (iii) 30 (iv) 58

Sometimes it is necessary to do Ekadhik or Eknyun more than once.

For example -

We get 13 by doing Ekadhik of 12 and 14 when we again do Ekadhik of 13 that is get 14 when we do Ekadhik of 12 twice.

Now lets do Eknyune of 12 twice.

We get 11 by doing Eknyune and 10 when we again do Eknyun of 11 that is we get 10 when we do Eknyune of 12 twice.

What numbers we will get when we do Ekadhik of these numbers thrice?

(i) 23 (ii) 15 (iii) 36 (iv) 42

Choose some numbers on your own and practice Ekadhik of these numbers.

Now tell -

What numbers will you get by doing Eknyunen twice?

(i) 16 (ii) 30 (iii) 67 (iv) 75

What numbers will you get from these numbers by doing Eknyunen thrice?

Choose some numbers on your own and practice doing Eknyune twice or thrice.

Addition with the help of Param Mitra.

If we have to add 1,2 or 3 to any digit, we can do it by doing Ekadhik. But if both the digits are greater than 5, it is easy to add with the help of Param Mitra.

Lets, look at an example.

9 + 7

Here we have to add 9 and 7. Param Mitra Ank of 9 is 1.

So we taken 1 from 7 and add it to 9.

Now 9 + 1 = 10

And taking out 1 from 7 makes it 6. By adding 6 to 10, we get 16

i.e.

Similarly practice addition with the help of Param Mitra.

(i) 7+8 (ii) 8+6 (iii) 9+8 (iv) 6+9

In a similar way, take two digits greater than 5 and try adding them with the help of Param Mitra.

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Ekadhik sign {One more} Addition by (.)

You know ab	out addition with carry. Let us from here. Take an
example Solve these	$5 4 \\ + \underline{1 8}$
(1) 5 4 + 1 8 2	12 is obtain by addition of unit digits (4+8) Unit digit 2 of this addition is written as its sum and carry 1 is written upon the 5 in ten's column.
(1) 5 4 $+ \frac{1}{7} \frac{8}{2}$	1+5+1=7 Is written as sum of ten's digit. Sum 72 is obtained
	If carry obtaind from addition of unit place digit 1 is written in the from of point in ten's column then
$5 4$ $+ \underbrace{1 8}$	Addition of 4 and 8 gives 12
$5 4 + \frac{1}{8}$	Write 2 of 12 as addition of unit digits and mark carry 1 as one point above 1 of ten's place digit. This point is known as Ekadhik sign(.).
$5 4$ $+\frac{1}{7} \frac{8}{2}$	Now add ten's place digits 5+(.)+1=7{count (.) as1} Total 72 is obtained Let us one more example
Example2	Solve these $\begin{array}{c} 4 & 6 \\ +2 & 4 \end{array}$
4 6 +2 4	Add 6 and 4 of unit place. Will get 6+4=10

 $+\frac{2}{0}$ Write 0 of 10 of addition in unit column.

Make carry 1 as(.) above 2.

- Now add ten's digits. 4+(.)+2=7 Count (.)as1. Total $+\frac{\dot{2}}{7}$ $\frac{4}{0}$
- addition 70 obtained.

This method is easier for addition of more than two numbers

Example 3 Solve these 2 7 8 4 +1 9



Add 7 and 8 of unit 15 obtained. Mark 1 in the form of ekadhik sign above 4 and add 5 and 9.14 obtained. Mark 1 Of 14 as ekadhik sign above 1 Of ten's column. Write 4 as result of addition. Now add digit of ten's 2+(.)+4+(.)+1=9

	1	8
Example 4 Solve these	2	5
-	+1	9

Solution:

4 6

ANSWERS

Exercise

Add with Ekadhik sign

1. ² ³	2. 3 8	3. 1 7	4. ¹	5	5. 3	7	6. 2	8
+3 6	+4 5	+2 4	1	7	2	8	1	7
			+ 2	8	+ 1	9	+3	6

Subtraction with Ekadhik sign {one more sign}

Problems of subtraction where borrowing of number is required. we use Ekadhik sign for subtraction. Here we have to use one more concept Parammitra of vedic maths. (Any two number whose sum is 10, are callwd as parammitra. Like 3 is Parammitra of 7 and 7 is Parammitra of 3 since 3+7=10. In this manner 6 and 4 are Parammitra. 5 is Parammitra of itself)

Let us understand this process with an example.

3 6 **Example 1.** Solve these -1 7 3 6 +3 -17 7 can not be subtraction from 6. Add Parammitra 9∢ of 7, 3 to 6. It gives 9. Write it below as result and mark ekadhik sign above1. Now subtract (.)+1 3 6 means 2 from 3. 1 obtained. Write it below as -i 7 result. Solution 19 obtained. 1 9 7 5 **Example 2 Solve these** -2 8



8 cannot be subtracted from 5. (add 2 Parammitra of 8 to 5, gives 7) Write it below as result. Mark Ekadhik sign(.) above 2. Subtract (.)+2 means 3 from 7. Obtained 4. Write it below as result.

Solution 47 obtained.

Practice

Subtract with Ekadhik sign.

1. 7	2	2. 3	7	3. 4	0	4. 3	5	5. 4	6	6. 6	8
-1	8	-1	9	-2	8	-2	6	-2	8	-3	9



Do you know what is written here?

It is: I want to be a lawyer.

Like devnaagri and Gurumukhi etc. Braille is also a script. Braille script is used by Blind persons to read and write. Braille was invented by Louis Braille in 1829. Braille script is based on six dots. These six dots are referred as the Braille cell. Each cell comprises of one Braille character. To write Braille script Blind person uses Stylus and Braille slate. Braille slate consist essentially of two metal or plastic plates hinged together to permit a sheet of paper to be inserted between the two plates. While writing on a Braille sheet (drawing sheet) it is to be written from right to left and then reverse the normal numbering of the Braille cell. Blind person reads these raised (embossed) dots with the help of their finger tip.



2)(5) Total 63 combinations are possible using these 6 dots. Some combinatios given below:

Braill	e cell							
		Br	aille	Cha	rt			
b	с	d	е	f	g	h	i	j
• 1 • 1	• • 		• • 1 •	•••	•••	•••	1 0 1 1	÷
1	m	n	0	р	q	r	S	t
:	• • 		• • • • • •					
v	w	x	у	z				
		••						
sign (😲	is used be	efore the	alphabet	ts a to j	to conve	ert them	to numb	ers.
2	3	4	5	6	7	8	9	0
	Braill b i i v sign (;;) 2	Braille cell b c c f b c f f f f f f f f f f f f f f	Braille cell Braille cell Braille cell Braile cell Braile cell Braile cell Braile cell Cell Cell Braile cell Cell Cell Cell Cell Cell Cell Cell	Braille cell Braille cell b c d e i i i i i i i i i i v w x y i i i i i i sign (ii) is used before the alphaber 2 3 4 5	Braille cell Braille Cha b c d e f b c d e f i ii ii ii ii I m n o p i ii ii ii ii iii V w x y z z sign (.:) is used before the alphabets 'a' to 'j' a a a iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Braille Chart b c d e f g i ii ii ii ii ii I m n o p q i ii ii ii ii ii V W X Y Z ii iii iii iii sign (::) is used before the alphabets 'a' to 'j' to convert a <td< td=""><td>Braille Chart b c d e f g h i ii ii ii ii ii I m n o p q r i ii ii ii ii ii v w x y z iii iii iii iii iii sign (iii) is used before the alphabets 'a' to 'j' to convert them 3 4 5 6 7 8</td><td>Braille Chart b c d e f g h i i ii ii ii ii ii ii i m n o p q r s i m n o p q r s i ii ii ii ii ii ii v w x y z ii ii sign (.i) is used before the alphabets 'a' to 'j' to convert them to numbra a 4 5 6 7 8 9</td></td<>	Braille Chart b c d e f g h i ii ii ii ii ii I m n o p q r i ii ii ii ii ii v w x y z iii iii iii iii iii sign (iii) is used before the alphabets 'a' to 'j' to convert them 3 4 5 6 7 8	Braille Chart b c d e f g h i i ii ii ii ii ii ii i m n o p q r s i m n o p q r s i ii ii ii ii ii ii v w x y z ii ii sign (.i) is used before the alphabets 'a' to 'j' to convert them to numbra a 4 5 6 7 8 9