



SOME TRICKS OF MULTIPLICATION

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Abstract: In the last few days I have seen progressive growth in the field of Mathematics. Children learn elementary maths. Through a rigid structure without any interest. Vedic Mathematics is of considerable benefit, it provides new techniques with interest, and low anxiety.

Key Words: magical multiply, magical tables

Introduction

The ancient system of Mathematics was reintroduced to the world by Swami Bharathi Krishna Tirtha Ji Maharaj, Shankaracharya of Govardhan Peeth. According to him all the mathematics is based on sixteen sutras and thirteen sub sutras.

METHOD

For example, Sutra Ekanyunena purvena: means one less than previous number. This sutra is applicable for multiplication of two numbers where multiplicand is any integer and multiplier is 9 or array of 9.

Magical multiplication:

1. Multiplication of any one digit by 9

6×9 step 1 subtract 1 from 6 = 5

 Step 2 subtract this number from 9, $9 - 5 = 4$

So $6 \times 9 = 54$

Multiply

8×9 $8 - 1 = 7$ and $9 - 7 = 2$

Therefore $8 \times 9 = 72$

2. Multiply any two digits by 99

42×99 , $42 - 1 = 41$, $99 - 41 = 58$

So $42 \times 99 = 4158$

Another example

Multiply 76×99

$76 - 1 = 75$, $99 - 75 = 24$

So, $76 \times 99 = 7524$

3. Multiply any three digit by 999

456 X 999

456 – 1 = 455, 999 – 455 = 544

Therefore, 456 X 999 = 455544

Another funny method of multiplication by 11

1. $36 \times 11 = 3(3+6)6$

= 396

2. $261 \times 11 = 2(2+6)(6+1)1$

= 2871

3. $3894 \times 11 = 3(3+8)(8+9)(9+4)4$

= 3(11)(17)(13)4

= 3(11)(18)34

= 3(12)834

= 42834

Table of 99,999,9999, -----etc.

Table of 99

Write 9 in the middle, then write 1,2,3,4,-----at hundreds place and write 8,7,6,5,----- at units place

99	similarly table of 999 and table of 9999	
198	999	9999
297	1998	19998
396	2997	29997
495	3996	39996
594	4995	49995
693	5994	59994
792	6993	69993
891	7992	79992
990	8991	89991
	9990	99990

conclusion: Vedic maths and Vedic sutras are very efficient. Basic mathematics is very easy to learn. We can write tables very easily.

References: 1. "Vedic mathematics". Swamy Bharath Krishna Tirath Ji Maharaj

2. Padamshree pethkar, Vedic Maths Ekanyunena Purvena, International Journal of Engineering, science and Mathematics, vol 9, 2020, ISSN:2320-0294.

3. Text Books of class V, VI, VII and VIII.