CHEATER

Cheating With Maths Problems

There are things that are known,
and things that are unkown,
and in between,
there are doors.

By,

Rajesh Chaturvedi

This Book Is Written

By the Inspiration of

My Loving Mother

Late Smt Savitri Devi Chaubey (Retd. Teacher)

And

Father Late Shri Uday Raj Chaubey (Retd. Teacher) And

Dedicated to all the

Teachers

Unlocking intricacies of

MATHEMATICAL OPERATIONS

Shri Rajesh Chaturvedi a dedicated teacher of kendriya vidyalaya sanghathan is a well know scholar innovator and mathematician. He has precociously worked to solve some intricate mathematical operation like multiplication of several digit by several digits, square roots of perfect square numbers of four digits(orally), cube roots of six digit perfect cubes(orally) and a new technique to find cube root of any number of any number of digits (manually). With personal Endeavour he has come up with the idea of placing his contribution in the field of mathematics teaching/learning in e-domain (available free of cost to all).

I wish him all the best and hope to see more such creative works in future.

(J.P.N. DWEIVEDI)

Retd. PRINCIPAL

KENDRIYA VIDYALAYA

DATE: 22/07/2015

Dear readers,

Before delivering tricks and techniques I want to tell something about myself, I Rajesh Chaturvedi have basic qualification in Mathematics only at intermediate level. I have post graduation in Economics and also have diploma in Electrical Engg.

But from childhood I always involve myself deeply in mathematics. I received the knowledge of mathematics from very good teacher. One of them is D.P. Singh who was retired Deputy Director of Jawahar Nvodaya Vidyalaya Samiti Lucknow. Due to such type of my involments I have clear concepts in fundamental mathematics and also become very good in physics.

In 80's decade a great Indian Mathematician was famous named Smt. Sakuntala Devi. I watch her shows on television. She performed several long operation of mathematics (multiplication of large numbers etc) in seconds. Then I start to think why I cannot do the same certainty she was not a magician. She was great mathematician. I start trying for this task and I make myself able to do the same. When I become a SUPW Teacher in Kendriya Vidyalaya Sangathan and posted at Kendriya Vidyalaya ITI Naini Allahabad my colleague, Sh. Shushil Srivastava TGT (Maths) sees the tricks and my devotion in math. Then he suggested that he was trying to calculate cube root of any number manually and I also started to work on this task. After that I got transfer to Kendriya Vidyalaya Tinsukhia (Assam). I succeed to developing a method to calculate a cube root of any number manually. Actually in journey time (48 hrs approx continuous train journey) I involve myself in mathematical calculation and in such one journey time (Allahabad to Tinsukhia) I got success to calculate a CUBE ROOT of any perfect cubic number (between 1 – 999999) orally.

I show my talent among my staff member of Kendriya Vidyalaya Tinsukhia in Lunch Time. After writing correct Cube Root of perfect cubic number several times on black board without any calculation, one of the staff member Sh. Acharyaloo Sir (PGT Maths) break the mystery of my technique. He traces it. This incident broke my heart. On the same day, after coming from Vidyalaya I engaged myself again to finding a technique to calculate the CUBE ROOT of any number(not only a perfectly cube) After 3 hours of panic concentration finally I got success to develop a method for finding a CUBE ROOT OF ANY NUMBER MANNUALLY. This times no boundary, no limitations. It may be very large or very small or in decimal. In those days scientific calculator of 16 digits are easily available, so I took a 51 digit large number and calculate its cube root which has 17 digits manually. It was as correct as we find it by any other mode such as computer.

I use e-mail/telegram/fax for spreading it in all over the world. But I got only one response from CASE Western Reserve UNIVERSITY. I also met some renounce great mathematicians in this connection, but their cool response did not encourage me. Now again I accepted a challenge to TRISECT AN ANGLE (one of unsolved problem of math's) which was knew by during conversation with them (Renounced mathematician) When I was posted in Kendriya Vidyalaya Manendragarh (C.G.) I also succeed myself to TRISECT AN ANGLE.

I want to say only that TRY, TRY AND TRY NEVER CRY. You must have clear concept and deep subjective knowledge. Don't stops unless you achieve your GOAL after that take new target.

ALL THE BEST

BASIC REQUIRMENT

It is not necessary to learning the tricks & technique that you are having good knowledge of Maths. But you must know the table up to 10.

EXERCISE

Engage yourself in addition while you are walking, during journeys in bus or not doing any important work. It will increase your speed for calculation such as:

2+3=5, 5+9=14, 14+17=31, 31+28=59, 59+14=73,

73+18=91 etc.

Multiplication:

For two digit number:

```
        29
  X     78
_______________
        72
       16
       63
      14
_______________
       2262
```

Now you think that which type of multiplication is this? It has four steps. Traditional methods have only 2 steps. It is special method. You can do multiplication orally after using it.

See again this calculation

	Thousand place digit	Hundred place digit	Ten's place digit	One's place digit	Remark
29x78			7	2	(9x8)
		1	6		(2x8)
		6	3		(9x7)
	1	4			(2x7)
	2	2	6	2	

If we multiplied two digit numbers by two digit number the result have three or four digit.

Product of one's place digit of both number is put at ten's and one's place. For example 9x8=72, we write 7 at ten's place & 2 at one's place.

Now one's place digit of first is multiplied by ten's place digit of other number. For example 2x8=16' we write 6 at ten's place & 12 at hundred's place.

Similarly ten's place digit o first is multiplied by one's place digit of other number. For example 9x7=63, we write 3 at ten's & 6 at hundred's place.

Product of ten's place digit of both number is put at hundred's and thousand's place. For example 2x7=14, we write at thousand's place & 4 at hundred's place.

Then simply add them.

The whole process is inside the mind not on paper after two or three times practice.

Now we again see it in different way (29x78)

For one's place digit (8x9=72) we took 2

For ten's place digit $\{(7^{a}+16^{b}+63^{c})=86\}$ we took 6

(a=carried from one's place, b=2x8, c=9x7)

For hundred's place digit $\{(8^{d}+14^{e}+)=22\}$ we took 2

(d= carried from ten's place digit, e=2x7)

For thousand's place digit $2^{f}=2$ we took 2

(f=carried from hundred's place)

So the result

29x78=2262

Exp 1:- 84x69

For one's place digit (9x4=36) we took 6

For ten's place digit $\{(3^{a}+72^{b}+24^{c})=99\}$ we took 9

(a=carried from one's place, b=8x9, c=4x6)

For hundred's place digit $\{(9^{d}+48^{e}+)=57\}$ we took 7

(d= carried from ten's place digit, e=8x6)

For thousand's place digit $5^{f}=5$ we took 5

(f=carried from hundred's place)

So the result

84x69=5796

Exp 2:- 27x23

For one's place digit (7x3=21) we took 1

For ten's place digit {(2^{a}+6^{b}+ 14^{c})=22} we took 2

(a=carried from one's place, b=2x2, c=7x2)

For hundred's place digit {(2^{d}+4^{e}+) =6} we took 6

(d= carried from ten's place digit, e=2x2)

So the result

27x23=621

Exp 3:- 56x78

For one's place digit (6x8=48) we took 8

For ten's place digit {(4^{a}+40^{b}+ 42^{c})=86} we took 6

(a=carried from one's place, b=5x8, c=6x7)

For hundred's place digit {(8^{d}+35^{e}+) =43} we took 3

(d= carried from ten's place digit, e=5x7)

For thousand's place digit 4^{f} =4 we took 4

(f=carried from hundred's place)

So the result

56x78=4358

For three digit number:

		2	**6**	**7**
X		**3**	**4**	**8**
			5	6
		4	8	
		2	8	
	1	6		
	2	4		
	2	1		
	8			
1	8			
6				
9	2	9	1	6

Now we are solving this problem in 9 steps instead of 3 steps.

When break big task in small pieces, it will become very easy to complete the task. Here, we apply it.

See again this calculation:

	Lacks place digit	Thousand place digit	Thousand place digit	Hundred's place digit	Ten's place digit	One's place digit	Remark
267x348					5	6	(7x8)
				4	8		(6x8)
				2	8		(7x4)
			1	6			(2x8)
			2	4			(6x4)
			2	1			(7x3)
			8				(2x4)
		1	8				(6x3)
		6					(2x3)
		9	2	9	1	6	

If we multiplied 3 digit numbers by 3 digits number the answer must have 5 or 6 digit.

Product of one's place digit (of both numbers) is putt at ten's place digit.

For example 7x8=56, we write 5 at ten's place & 6 at one's place.

Now ten's place digit of first number is multiplied by one's place digit of second number.

For example 6x8=48, we write 8 at ten's place & at hundred's place.

Similarly, one's place digit of first number's multiplied by ten's place digit of second numbers.

For example 7x6=28, we write 8 at ten's place and 2 at hundred's place.

Then hundred's place digit of first number is multiplied by one's place digit of second number.

For example 6x4=24, we write 4 at hundred's place & 2 at thousand's place.

Then hundred's place digit of frit number is multiplied by hundred's place digit of second number.

For example 7x3=21, we write 1 at hundred's place & at thousand's place.

Then hundred's place digit of first number is multiplied by ten's place of second number.

For example 2x4=8, we write 8 at thousand's place.

Then ten's place digit of first number is multiplied by hundred's place digit of second number.

For example 6x3=18, we write 8 at thousand's place & 1 at ten thousand's place.

Finally we multiply hundred's place digit of first number by hundred's place digit of second number.

For example 2x3=6, we write it at ten thousand's place

Then simply add them.

The whole operation must be done in mind, not on paper after 2 or 3 times practice you can surprise other.

Again see it,

267x348

For one’s place digit	(7x8=56) we took 6
For ten’s place digit	{(5^{a}+48^{b}+ 28^{c}) =81} we took 1
	(a=carried from one’s place, b=6x8, c=7x4)
For hundred’s place digit	{(8^{d}+16^{e}+24^{f}+21^{g}) =69} we took 9
	(d= carried from ten’s place digit, e=2x8, f=6x4, g=7x3)
For thousand’s place digit	{(6^{h}+8^{i}+18^{j})=32} we took 2
	(h=carried from hundred’s place, i=2x4, j=6x3)
For ten thousand’s place digit	{(3^{k}+6^{l})=9} we simply take 9

So the result

267x348=92916

Exp4: 736x584

For one’s place digit	(6x4=24) we took 4
For ten’s place digit	{(2^{a}+12^{b}+ 48^{c}) =62} we took 2
	(a=carried from one’s place, b=3x4, c=6x8)
For hundred’s place digit	{(6^{d}+28^{e}+24^{f}+30^{g}) =88} we took 8

	(d= carried from ten's place digit, e=7x4, f=3x8, g=6x5)
For thousand's place digit	{(8^h+56^i+15^j)=79} we took 9
	(h=carried from hundred's place, i=7x8, j=3x5)
For ten thousand's place digit	{(7^k+35^l)=42} we simply take 2
	(k=carried from ten thousand's place, i=7x5)
For Lack's place digit	4^m, we simply took 4
	(m=carried from thousand's place)

So the result

736x584=429824

Exp5: 243x879

For one's place digit	(3x9=27) we took 7
For ten's place digit	{(2^a+36^b+ 21^c) =59} we took 9
	(a=carried from one's place, b=4x9, c=3x7)
For hundred's place digit	{(5^d+18^e+28^f+24^g) =75} we took 5
	(d= carried from ten's place digit, e=2x9, f=4x7, g=3x8)
For thousand's place digit	{(7^h+14^i+32^j)=53} we took 3
	(h=carried from hundred's place, i=2x7, j=4x8)
For ten thousand's place digit	{(5^k+16^l)=21} we simply take 1
	(k=carried from ten thousand's place, i=2x8)
For Lack's place digit	2^m, we simply took 2

(m=carried from thousand's place)

So the result

243x879=213597

Exp6: 548x432

For one's place digit (8x2=16) we took 6

For ten's place digit $\{(1^a+8^b+24^c)=33\}$ we took 3

(a=carried from one's place, b=4x2, c=8x3)

For hundred's place digit $\{(3^d+10^e+12^f+32^g)=57\}$ we took 7

(d= carried from ten's place digit, e=5x2, f=4x3, g=8x4)

For thousand's place digit $\{(5^h+15^i+16^j)=36\}$ we took 6

(h=carried from hundred's place, i=5x3, j=4x4)

For ten thousand's place digit $\{(3^k+20^l)=23\}$ we simply take 3

(k=carried from ten thousand's place, i=5x4)

For Lack's place digit 2^m, we simply took 2

(m=carried from thousand's place)

So the result

548x432=236736

We may use it for any number of digits. It is not necessary that both numbers are having same number of digits.

Let’s try, if we want to multiply a 3 digit number by 2 digit number such that 847x69

	Lacks place digit	Thousand place digit	Thousand place digit	Hundred’s place digit	Ten’s place digit	One’s place digit	Remark
					6	3	7x9
847x69				3	6		4x9
				4	2		7x6
			7	2			8x9
			2	4			4x6
		4	8				8x6
		5	8	4	4	3	

If we multiplied 3 digits number by 2 digit number the answer must have 4 or 5 digit.

Product of one’s place of both numbers is put at ten’s & one’s place.

For example 7x9= 63. We write 6 at ten’s place & 3 at one’s place.

Ten’s place digit of first number is multiplied by one’s place digit of second number.

For example: 4x9=36, we write 6 at ten’s place & 3 at hundred’s place.

Similarly one’s place digit of first number Is multiplied by ten’s place of other.

For example: 7x6= 42, we write 2 at ten’s place & 4 at hundred’s place.

Then hundred’s place digit of first number is multiplied by one’s place of other.

For example: 8x9=72,we write 2 at hundred’s place & 7 at thousand’s place.

Lastly hundred’s place digit of first number is multiplied by ten’s place of other.

For example: 4x6=24, we write 4 at ten thousand’s place & 8 at thousand place.

Then simply add them.

The whole process must be completed indside the mind.

Now we again see it in different way (847x69)

For one’s place digit (7x9=63) we took 3

For ten’s place digit {(6[a]+36[b]+ 42[c]) =84} we took 4

(a=carried from one's place, b=4x9, c=7x6)

For hundred's place digit $\{(8^d+72^e+24^f)=104\}$ we took 4

(d= carried from ten's place digit, e=8x9, f=4x6)

For thousand's place digit $\{(10^g+48^h)=58\}$ we took 8

(g=carried from hundred's place h=8x6)

For ten thousand's place digit 2^i, we simply took 2

(i=carried from thousand's place)

So the result

847x69=58443

Exp7: 239x76

For one's place digit (6x9=54) we took 4

For ten's place digit $\{(5^a+18^b+63^c)=86\}$ we took 6

(a=carried from one's place, b=6x3, c=9x7)

For hundred's place digit $\{(8^d+12^e+21^f)=41\}$ we took 1

(d= carried from ten's place digit, e=2x6, f=3x7)

For thousand's place digit $\{(4^g+14^h)=18\}$ we took 8

(g=carried from hundred's place h=2x7)

For ten thousand's place digit $1^i=1$, we simply took 1

(i=carried from thousand's place)

So the result

239x76=18164

Exp8: 845x27

For one’s place digit (7x5=35) we took 5

For ten’s place digit {($3^a+28^b+10^c$) =41} we took 1

(a=carried from one’s place, b=4x7, c=2x5)

For hundred’s place digit {($4^d+56^e+8^f$) =68} we took 8

(d= carried from ten’s place digit, e=7x8, f=4x2)

For thousand’s place digit {(6^g+16^h)=22} we took 2

(g=carried from hundred’s place h=2x8)

For ten thousand’s place digit 2^i=2, we simply took 2

(i=carried from thousand’s place)

So the result

845x27=22815

Exp9: 786x43

For one’s place digit (3x6=18) we took 8

For ten’s place digit {($1^a+24^b+24^c$) =49} we took 9

(a=carried from one’s place, b=3x8, c=6x4)

For hundred’s place digit {($4^d+21^e+32^f$) =57} we took 7

(d= carried from ten’s place digit, e=3x7, f=4x8)

For thousand’s place digit {(5^g+28^h)=33} we took 3

(g=carried from hundred's place h=4x7)

For ten thousand's place digit 3^{i}=3, we simply took 3

(i=carried from thousand's place)

So the result

786x43=33798

<u>GUESSING SQUARE ROOT OF APERFECT SQUARE NUMBER</u> (UPTO 4 DIGITS)

Now learn and memorize square of first 10 natural numbers.

1^2=1

2^2=4

3^2=9

4^2=16

5^2=25

6^2=36

7^2=49

8^2=64

9^2=81

10^2=100

After observing written above, we found something:

1. All perfect square number have only 0, 1, 4, 9, 6 & 5 at one's place.
2. If the perfect square number has 6 at its one's place square root have 4 or 6 at one's place.
3. If the perfect square number has 9 at its one's place square root have 3 or 7 at one's place.
4. If the perfect square number has 4 at its one's place square root have 2 or 8 at one's place.
5. If the perfect square number has 1 at its one's place square root have 1 or 9 at one's place.
6. If the perfect square number has 0 or 5 at its one's place square root have 0 or 5 at one's place.

We are establishing the relation between the one's place digit of perfect square & the number.

Traditional (common) method for calculating square root

1. 1st Method:

	26
2	676
2	4
46	276
	276

So square root of 676 is 26

2. 2nd Method

2	676
2	338
13	169
	13

$676=\overline{2x2}x\overline{13x13}$

So square root of **676 = 2 x 13**

=26

A new technique for guessing square root of perfect square number (between 82 to 9999) orally but accurately.

For example: 7569

We break it in 2 parts i.e, 75 & 69

75 exist on number line between 64(square of 8) and 81(square of 9) so ten's place digit of square root must be 8 for one's place assumption we know that 9 came at one's place of perfect number only when square root numbers are having 3 or 7 at one's place.

Here in this case it must be 7 because 75 is nearer to 81(square of 9) in comparison to 64 (square of 8).

So the square root of 7569=87

For an other example: 8464

We break it in 2 parts i.e, 84 & 64

84 exist on number line between 81(square of 9) and 100(square of 10) so ten's place digit of square root must be 9 for one's place assumption we know that 4 came at one's place of perfect number only when square root numbers are having 2 or 8 at one's place.

Here in this case it must be 2 because 84 is nearer to 81(square of 9) in comparison to 100 (square of 10).

So the square root of 8464=92

For an other example: 1369

We break it in 2 parts i.e, 13 & 69

13 exist on number line between 9(square of 3) and 16(square of 4) so ten's place digit of square root must be 3 for one's place assumption we know that 9 came at one's place of perfect number only when square root numbers are having 3 or 7 at one's place.

Here in this case it must be 7 because 13 is nearer to 16(square of 4) in comparison to 9 (square of 3).

So the square root of 1369=37

For an other example: 3136

We break it in 2 parts i.e, 31 & 36

31 exist on number line between 25(square of 5) and 36(square of 6) so ten's place digit of square root must be 5 for one's place assumption we know that 6 came at one's place of perfect number only when square root numbers are having 4 or 6 at one's place.

Here in this case it must be 6 because 31 is nearer to 36(square of 6) in comparison to 25 (square of 5).

So the square root of 3136=56

After some practice you make yourself to assume the square root of any perfect square number from 1 to 9999…

BEST OF LUCK

Cube Root

Now learn and memories cube of first 10 natural numbers.

$1^3=1$

$2^3=8$

$3^3=27$

$4^3=64$

$5^3=125$

$6^3=216$

$7^3=343$

$8^3=512$

$9^3=729$

$10^3=1000$

After observing cube written above we could conclude the following:

1. If 0, 1, 4, 5, 6 & 9 are at one's place of the number then cube is also having the same digit at one's place.
2. If the perfect cube has 8 at one's place then cube root has 2 at one's place.
3. If the perfect cube has 2 at one's place then cube root has 8 at one's place.
4. The same relation also between 3 & 7 mean if 3 is at one's place then its cube must have 7 at one's place.
5. It the perfect cube has 7 at one's place then its cube root has 3 at one's place.

Traditional (common) method for calculating cube root

For example: we want to calculate cube root of 5832

We are commonly known only one method i.e., prime factorization

2	5832
2	2916
2	1458
3	729
3	243
3	81
3	27
3	9
	3

So,

$$\mathbf{5832 = \overline{2x2x2}x\overline{3x3x3}x\overline{3x3x3}}$$

$$\sqrt[3]{5832} = 2x3x3$$

$$= 18$$

Orally we can try exactly guessing the correct answer for a perfect cubic number between 1 & 999999.

For example 1: 2197

We break it in to two parts 2 & 197

Finding digit for ten's place digit of CUBE ROOT

Since 2 exist on number line between 1 (cube of 1) and 8 (cube of 2).
So ten's place digit of cube root must be 1.

Finding digit for one's place digit of CUBE ROOT

At one's place it has 7, so its cube root must have 3 at one's place. So one's place digit must be 3.

So cube root of 2197=13

<u>For example 1: 13824</u>

We break it in to two parts 13 & 824

<u>Finding digit for ten's place digit of CUBE ROOT</u>

Since 2 exist on number line between 8 (cube of 2) and 27 (cube of 3).

So ten's place digit of cube root must be 2.

<u>Finding digit for one's place digit of CUBE ROOT</u>

At one's place it has 4, so its cube root must have 4 at one's place. So one's place digit must be 4.

So cube root of 13824=24

<u>For example 1: 50653</u>

We break it in to two parts 50 & 653

<u>Finding digit for ten's place digit of CUBE ROOT</u>

Since 50 exist on number line between 27 (cube of 3) and 64 (cube of 4).

So ten's place digit of cube root must be 3.

<u>Finding digit for one's place digit of CUBE ROOT</u>

At one's place it has 3, so its cube root must have 7 at one's place. So one's place digit must be 7

So cube root of 50653=37

For example 1: 778688

We break it in to two parts 778 & 688

Finding digit for ten's place digit of CUBE ROOT

Since 778 exist on number line between 729 (cube of 9) and 1000 (cube of 10). So ten's place digit of cube root must be 9.

Finding digit for one's place digit of CUBE ROOT

At one's place it has 8, so its cube root must have 2 at one's place. So one's place digit must be 2.

So cube root of 778688=92

I was caring how this can be formulated to cube root of any number. What I developed is follows:

Uncommon self developed method for calculation cube root of any number

We start it with perfect cubic number i.e., 5832

	$(1^a8^d)^e$
1^a	$\overline{5}\ \overline{832}$
2^b	1
3^c8^d	4832
	$(4832)^f$

a=5 less than 8 so we take 1

b =2a

c= a+b i.e., 1+2=3

d= assume a number which is multiplied by c & d which one is equale . or less than number performed by leaving one's place digit.

e= number made by 'a' & 'b' at ten's place & one's place . respectively.(here; a=1, b=8 so e=18)

f= c x d x 10 x e + d x d x d

= 3 x 8 x 10 x 18 + 8 x 8 x 8

= 4320 + 512

= 4832

Example1:

2197

$(1^{a}3^{d})^{e}$

1^{a}	$\overline{2}\ \overline{197}$
2^{b}	1
$3^{c}3^{d}$	1197
	$(1197)^{f}$

f= c x d x 10 x e + d x d x d

= 3 x 3 x 10 x 13 + 8 x 8 x 8

= 1170 + 27

= 1197

<u>Example2:</u>

13824

	$(2^a 4^d)^e$
2^a	$\overline{1}3\ \overline{824}$
4^b	1
$6^c 4^d$	5824
	$(5824)^f$

f= c x d x 10 x e + d x d x d

= 6 x 4 x 10 x 24 + 4 x 4 x 4

= 5760 + 64

= 5824

__Example3:__

300763

	$(6^a 7^d)^e$
6^a	$\overline{300}\ \overline{763}$
12^b	216
$18^c 7^d$	84763
	$(84763)^f$

f= c x d x 10 x e + d x d x d

= 18 x 7 x 10 x 67 + 7 x 7 x 7

= 84420 + 343

= 84763

FOR CALCULATING CUBE ROOT OF ANY NUMBER

Self developed method published in "sangam" yearly magazine of kendriya vidhyalaya sangathan New Delhi teacher's day special edition in sept' 2002

Step 1: First of all group the number in pair of three digit from right to left (ones place to higher or lower place).

Step 2: Choose first pair from left. It may have a single, double or triple.

Step 3: Choose a single digit number whose cube is equal or less than the first pair. If we increase the no. just by one its cube must exceed from the pair

Step 4: Just like the calculation done in case of long division method for square root, we can write in that manner.

Step 5: Just add the double of number which we have predicted in that manner.

Step 6: Choose the number whose cube + product of the sum and this number and the number formed by putting it on right side before first number also multiplied by 10. It must be equal or just less than number formed by any reminder and next pair.

Step 7: Again add the double of just predict number and repeat it at that level which we want for accuracy.

	89.82........
8	72857.31200
+(2x8)16	512(cube of 8 = 512)
24 9	212857
+(2x9)18	192969{(24x9x89x10)+cube of 9}
267 8	19999312
+(2x8)16	19181792{(267x8x898x10)+cube of 8}
2694 2	706520400
+(2x2)4	483950168{(2694x28982x10)+cube of 2}
26946	222570232

Thank you for reading my book

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