

DD Calculator an Important Need and Invention for Engineering and Technology

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ABSTRACT- The addition, subtraction, multiplication and division, these four operations are the base of mathematics. The term division is also distributed in four sub constitutes as dividend, divisor, quotient and remainder. The decimal is an important hero under term division, where the symbol equal to $,$ is a common object for every operation. On deep studied it is found that if we have used the term division according to awadh remainder theory we can read and represent such operation in excellent mode and we can find out the accurate position of any object. The symbol of remainder is also nominated as double dot/double decimal (DD). It have been published in the International Journal of Scientific and Engineering Research (IJSER), edition June 2013, under entitled Invention of Sequence Management, page 279 to 286 . On the basis of this theory for fast calculation, a laptop/computer software based special calculator (DD Calculator) have been developed to solve the problems based on sequence management. It is also able to find out quotient with remainder. When analysis the uses of this special calculators it is found that it is the word level advantage in the field of mathematics as well as applied science ,engineering and technology, corporate world, space science, etc.

Key Word -, accurate position, n- dimension, (.,.), DD calculator, quotient, remainder.

I. INTRODUCTION

As our assumption that where the mathematics and physics involve, there produce engineering and where mathematics, physics involve with art there produce technology. The every countries are developing due to develop of engineering and technology. This discovery will be an important new chapter of mathematics covered engineering and technology as well as several fields of life.

II. DESCRIPTION

1. From Awadh Remainder Theory-

Since we know that if,
 $A \div B = C,$

then $A = B \times C$

Where,

A = Dividend

B = Divisor

C = quotient

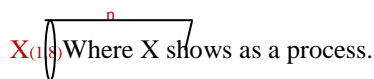
But if, $A \div B \neq C$ then,

$A \div B = C..R$

This is called **awadh remainder theory**, where R is remainder and the symbol (..) is nominated as remainder or **DD (Double Decimal or Double Dot) and read as A divided by B or A upon B is equal to C DD R.**

2.From Sequence theory Concept-If any process will be run in any described sequence and event will be happened again and again then the process to represent it is called sequence system theory. There are more than 18th

concepts have discovered and it have publish through various International Journals An example of sequence system is given below-



The above shows that there is a process in form of-

$X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_1, X_2, X_3, X_4, X_5, X_6, \dots, n$ times.

OR

$X_1 \rightarrow X_2 \rightarrow X_3 \rightarrow X_4 \rightarrow X_5 \rightarrow X_6 \rightarrow X_7 \rightarrow X_8 \rightarrow X_1 \rightarrow X_2 \rightarrow X_3 \rightarrow X_4 \rightarrow X_5 \rightarrow X_6 \rightarrow X_7 \dots, n$ times.

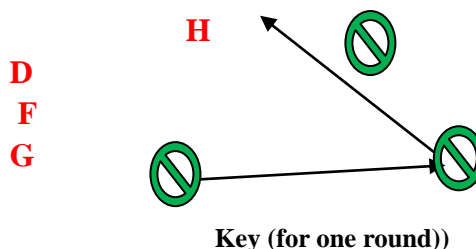
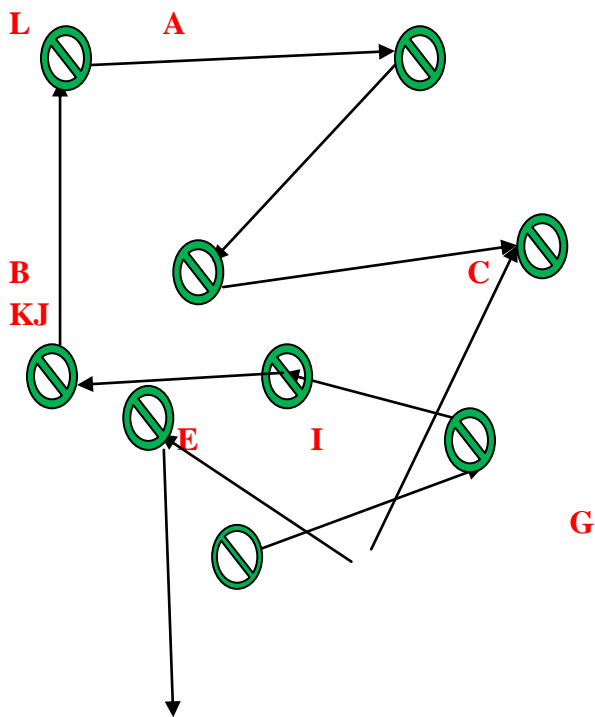
Rules-

- If remainder is 01 then the model of step will be First(X_1).
 - If remainder is 02 then the model of step will be Second(X_2).
 - If remainder is 03 then the model of step will be Third(X_3).
 - If remainder is 04 then the model of step will be Four(X_4).
 - If remainder is 05 then the model of step will be Five(X_5).
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 - If remainder is 00 then the model of step will be last(X_8).
- And the process will be run again and again up to n times as above described sequence.

III. APPLICATION

01. Engineering and Technology-

Suppose that a moving instrument work done in n-dimensional space as below-



Consider	
Distance	AB=BC=CD=DE=EF=FG=GH=HI=IJ=JK=KL=LA= 10 Kilometer
Time	AB=BC=CD=DE=EF=FG=GH=HI=IJ=JK=KL=LA= 01 second
Total Time	1+1+1+1+1+1+1+1+1+1+1= 12 seconds

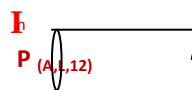
Now find out the status of moving instrument at 15 minutes and 10th second?

Solution:-

Given that, there are 12 steps A to L in one round and the event will be happened again and again in above path up to n time. The total time taken in one round are 12 seconds as below-

A	B	C	D	E	F	G	H	I	J	K	L
1	2	3	4	5	6	7	8	9	10	11	12

According to Sequence System Theory(see the reference No. 06)we can write it-



Where P is a symbol represented the whole process as described above.

Now we have to find out the status of moving instrument at 15 minutes and 10th second -

15minutes is converted into seconds-

as

$$15 \times 60 \text{ seconds} + 10 \text{ seconds} = (900 + 10) \text{ second} = 910 \text{ second}$$

For fast calculation, by awadh remainder theory, we can use DD Calculator as below -

$$910 \div 12 = 75..10$$

$$\begin{matrix} \text{select} & \text{select} & \text{select} & \text{select} \\ 910 & \longrightarrow \div & \longrightarrow 12 & \longrightarrow (..)DD \longrightarrow 75..10 \end{matrix}$$

Consider that there are 150 pens. It will be contributed within 23 students in equal numbers. Find out the distribution status of the pens to each student and position of extra pens?

Solution:-

There are given that-

Total number of pens = 150
 Total number of student = 23

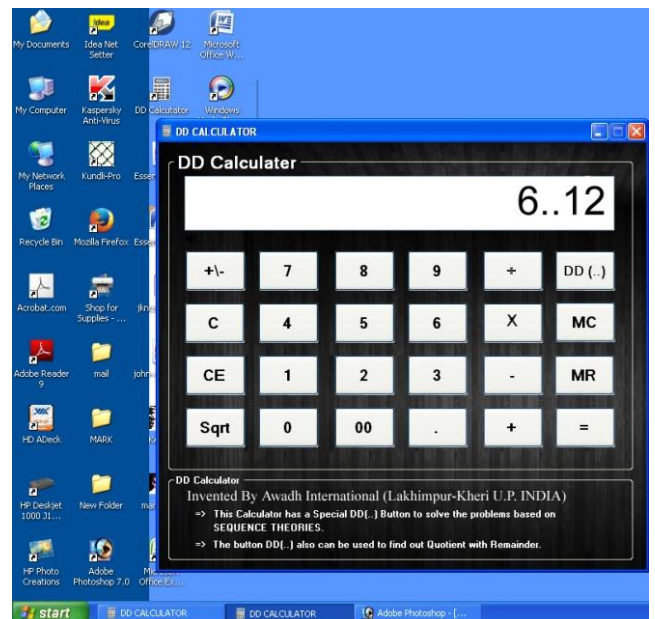
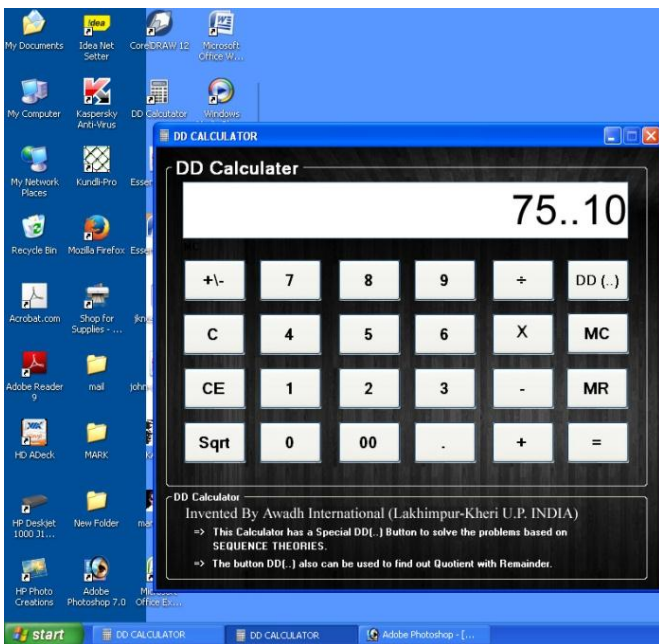
So, by awadh remainder theory, we can write it -

$$75..10$$

$$150 \div 23 = 6..12$$

Now by using DD Calculator-

$$\begin{matrix} \text{select} & \text{selectselect} & \text{select} & \text{result} \\ 150 & \longrightarrow \div & \longrightarrow 23 & \longrightarrow (..)DD \longrightarrow 6..12 \end{matrix}$$



So, the moving instrument completed your 75th rounds and at 910th seconds (at 15 minutes and 10 seconds) the object will be at the accurate point (serial number 10) that is J,

So, every student have 6 pens and 12 pens will be in extra.

02. Mathematical Science-

03. Corporate world-

Consider govt. granted a budget of 1,00,00,000.00 13 city buses and other formalities with contractor profits. The cost of one city bus is Rs. 7,50,000.00. Now find out the purchasing cost of purchased city buses and for other formalities with contractor profits in rupees?

Solution-

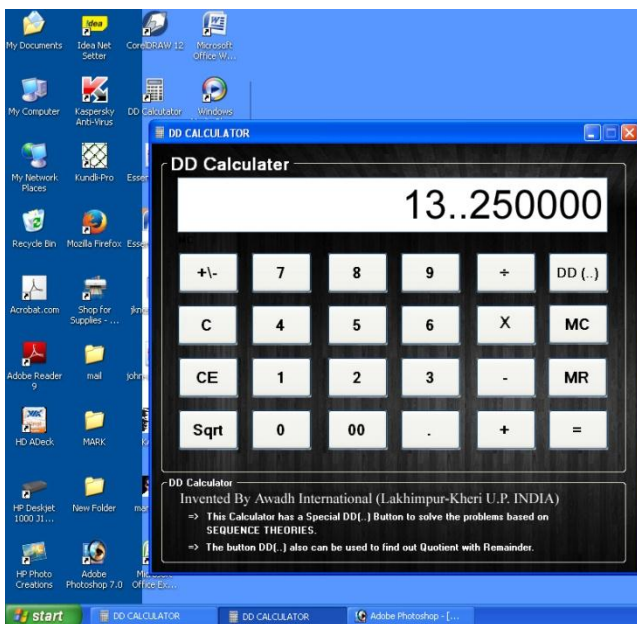
Given that-

Total budget granted by govt.= 1,00,00,000.00
 Cost of one bus = 7,50,000.00

Now by using awadh remainder theory and DD calculator-

$$10000000 \div 750000 = 13..250000$$

select select select select result
 $10000000 \div 750000 \rightarrow (..)DD \rightarrow 13..250000$



So, we can purchase 13 city buses and Rs. 2,50,000.00 remained for other formalities and contractor profit.

04. General Using of Life

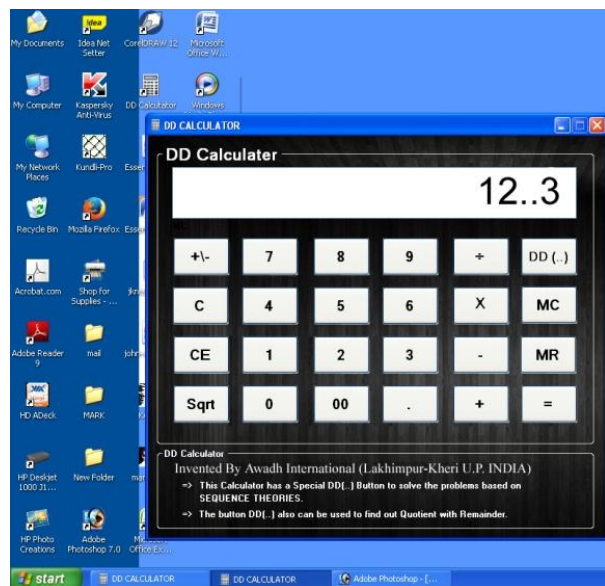
If today is Monday, consider Monday to Sunday as a week. Find out the status of next 87th days .

1. Monday 2. Tuesday 3. Wednesday 4.Thursday 5. Friday 6. Saturday 7. Sunday

Solution-Using awadh remainder theory-

$$87 \div 7 = 12..3$$

select select select select result
 $87 \rightarrow \div \rightarrow 7 \rightarrow (..)DD \rightarrow 12..3$



So, the next 87th days will be Wednesday and it will be after week number 12 ,that is it will be under week number 12+1=13.

IV . CONCLUSION

Therefore if analysis the uses of this discovery DD is an important need of mathematical science. Now we can find out the accurate position of any object by using of decimal and DD. For fast calculation the developing of DD calculator is so important. So, at the scientific view, the developing of DD assumption/calculator is an important discovery covered the field of mathematics, engineering and technology, as well as corporate world and other several fields of life around the world..



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V. REFERENCE

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