# How to get Value of 11 Powers after 11^4 

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## Motivation:

From my childhood I was very anxious about Mathematics,one day I got a book and read an article about "Pascal Triangle" ,all of a sudden a question raised in my mind how this triangle came into existence and in few days I got the result that is 1,11,121,1331,14 641,151010 $51, \ldots . . . . . . .$. are the coefficient $x, a+x, a^{\wedge} 2+2 a x+x^{\wedge} 2, a^{\wedge} 3+3 a x^{\wedge} 2$ $+3 a^{\wedge} 2 x+x^{\wedge} 3, \ldots \ldots \ldots \ldots \ldots$............ work on Pascal Triangle we get amazing results like $11,121,1331,14641$ all are power of respectively $11,11^{\wedge} 2,11^{\wedge} 3,11^{\wedge} 4$
but if we investigate deeply what about $11^{\wedge} 5$ here basically found out what is the method used to get it.

## Methodology Important Findings:

As per Pascal Triangle and result of $11^{\wedge} 4$ both same but if we move on $11^{\wedge} 5$ ( actually value of $11^{\wedge} 5$ is 161051 but as per Pascal Triangle it is 15101051.
The Method which I find is mentioned Below.

## How to get value of $11^{\underline{5}}$ after $11^{4}$ from Pascal Triangle

Pascal Triangle is really a great work by Pascal \& open many options for scholars in mathematics. Pascal's triangle is a triangular array of the binomial coefficients. It is based on $x,(a+x),(a+x)^{2},(a+x)^{3} \&$ soon.

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Methodology \& Important Findings: As per Pascal Triangle and result of $11^{\wedge} 4$ both same but if we move on $11^{\wedge} 5$ (actually value of $11^{\wedge} 5$ is 161051 but as per Pascal Triangle it is 15101051.
The Method which I find is mentioned Below.
Put coefficient of $x,(a+x),\left(a^{2}+2 a x+x^{2}\right),\left(a^{3}+3 a^{2} x+3 a x^{2}+x^{3}\right)$ as $(1),(1,1),(1,2,1),(1,3,3,1) \&$ soon $\ldots$
Onwards from here, many scholars worked out to put their own theories, so here is my work on Pascal Triangle.

$$
\begin{aligned}
& { }^{1} 1 \\
& 121 \\
& \begin{array}{lll}
1 & 3 & 3
\end{array} \\
& \begin{array}{lllll}
1 & 4 & 6 & 4 & 1
\end{array} \\
& 15101051
\end{aligned}
$$

If we sum up the rows, we get a GP series i.e. $1,2,4,8,16,32,64, \ldots \ldots$.


Now, it's a very interesting for all of us to get $11^{5}$ after $11^{4}$ as $11^{4}=14641$ but for $11^{5}$, the value becomes 161051 which is absent in Pascal triangle practically. So, I get a solution.

