***Determinant***

******

The determinant is associated with a square matrix .

The total terms of a determinant is equal to  with ***n*** entries (elements) to each product term.

Half are positive (or product sign stay the same) and the other half sign has to be opposite.

***Block Method***



***Proof***











***Example***

  



***Example***

  









***Co-Factor Method***





***Diagonal Method***

 



***Plus***

***Another Method***





  (*Opposite sign*)





1. Copy the  &  rows bellow  row respectively.
2. Copy the ,  and  column next to the  column respectively as is shown below



Determinant =





























Row number always 1 2 3 4 sequence to all the terms values 

***Up*** (Column Number)



***Up*** (Column Number)

As for the column numbers:

1 2 3 4 2 3 4 1 3 4 1 2 4 1 2 3

1 3 4 2

1 4 2 3

***Down*** (Column Number)



***Down*** (Column Number)

As for the column numbers:

1 4 3 2 2 1 4 3 3 2 1 4 4 3 2 1

1 3 2 4

1 2 4 3

The red product terms have opposite sign (multiply by minus)







  

  

  

  

  

  

  

  

  

  

  

  

  

  

  

  

  

  