

# Strassen's Matrix Multiplication

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**Abstract.** Usual Matrix Multiplication takes  $O(n^3)$ . To avoid such a long computation, We adopt Strassen's Matrix Multiplication Algorithm

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## 1 Matrix Multiplication

We have been learning Matrix Multiplication since High School. Its a great tool. Matrix Multiplication can be said as dot product of row of one matrix with the columns of other matrix.

### 1.1 Matrix Multiplication with Divide and Conquer.

Divide and Conquer is the method of dividing a large problem into smaller same problem for which we know the answer and then combining it.

**How do we use Divide And Conquer for Matrix muliplication**

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