

## CS/DSA ALGORITHM ANALYSIS

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### Homework 8, Due on Nov 7, 2019.

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1.  $A = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$   $B = \begin{bmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{bmatrix}$ . Multiply this by using strassen's and verify that you get the same result if you use the standard method.
2. Solve  $T(n) = 7T(n/2) + n^2$  when  $n = 2^k$ ,  $T(1)=1$ .
3. Solve  $M(n) = 7M(n/2)$  where  $M(1)=1$ .