

Tutorial 5

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typical base case for I/O-recurrence: $T(t) = \begin{cases} O(M/B) & \text{if whole subproblem fits in main memory} \\ \delta T\left(\frac{t}{2}\right) + O\left(\frac{t^2}{B}\right) & \text{otherwise} \end{cases}$

in this case: $3(t^2 + 2t(B-1)) \leq M$
3 $t \times t$ matrices, plus blocks sticking out

for exercise 5.5(iii) δ

\uparrow number of I/Os outside recursive calls
 \uparrow to add matrices