CSE 102 Spring 2021
Quiz Reflection 3

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1 Quiz 3

Solution for 1. a): "Decimal War" is an attempt to improve asymptotic complexity of a problem by a tiny decimal amout. c): The algorithm may be not practical. □

Solution for 3. a): 16 blocks b): Since there are 4^3 multiplication required, $T(n) = 64T(n/4) + cn^2$ c): We are looking for M such that $\log_4 M < \log 27 = \log_4 49$, hence M can be 48. I completely misunderstand the whole problem by very start, so I did every step wrong in the following. □

Solution for 5. a):$24 \rightarrow 13 \rightarrow 7 \rightarrow 4 \rightarrow 3 \rightarrow 2$
Even case: include $n/2 + 1$ at the next level.
Odd case: include $\frac{n+1}{2}$ at the next level.
I thought it was asking me to divide two 24 sizes array, and I only provide 1 subproblem, which is wrong. □

Solution for 6. I did not provide text description of my sorting algorithm. □