Algorithm Recitation6

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2.
$T(n) = 2T(n-2) + 15$
$T(n-2) = 2T(n-4) + 15$
$T(n) = 2(T(n-4) + 15) + 15$
$T(n-4) = 2T(n-6) + 15$
$T(n) = 2(2(2T(n-6) + 15 + 15) + 15$
Since $T(1) = T(0) = 15$,$T(n) = O(2^n)$
3.
$T(n) = T(n/2) + 10$
By Master's Theorem, a=1, b=2 c=0
$T(n) = \Theta(n^0 logn) = \Theta(logn)$