Solutions to Exercises (8/31/99)

Exercises on Master Methods:

$a = 4, b = 2$, $n^{log_b a} = n^{log_2 4} = n^2$

1. $\varepsilon = 1$, $T(n) = \theta(n^2)$

2. $f(n) = \theta(n^{log_b a})$, $T(n) = \theta(n^2\ lg\ n)$

3. $\varepsilon = 1$, $4(\frac{n}{2}^3) = n^3/2 \leq cn^3$? *Yes for* $c > 1/2$
$T(n) = \theta(n^3)$