Joshua Cole

Problem 1.2

b. Solve the recurrence: $T(n) = 3T(n/5) + lg^2 n$

If we use the master method we get $n^{log_3 5}$ which is approximately $n\sqrt{n}$. Comparing this to $f(n)$ makes it pretty clear that $T(n) = \theta(n^{log_3 5})$.