# Problem 4

b)
$f(n) \in \Theta(n^{\frac{3}{2}})$
$g(b) \in \Theta(n(\log n)^2)$
Let $L = \lim_{n->\infty} \frac{f(n)}{g(n)} = \lim_{n->\infty} \frac{n^{\frac{3}{2}}}{n(\log n)^2} = \lim_{n->\infty} \frac{\sqrt{n}}{(\log n)^2} = 0$
Therefore, $f(n) \in o(g(n))$