1. Kohler curves can be represented as $e_s'(r)/e_s(\text{environment}) = 1 + a/r - b/r^3$. What do the terms $e_s'(r)$, $a/r$, and $b/r^3$ mean physically? For sea-salt with a mass of dissolved salt of $10^{-15} \text{ g}$ at 0°C, representative values are $a=0.1189 \text{ micron}$, $b'=0.01475 \text{ micron}^3$. At what critical radius and supersaturation might the sea-salt be expected to serve as a cloud condensation nucleus? (show your work symbolically first, then plug in numbers).

2. prob. 6.11 from Wallace and Hobbs