

Physics 451: Homework #21

Due Thursday, Dec. 4, 5:00PM, 2008

5.11 worth double

Note: $\int r e^{\alpha r} dr = \frac{e^{\alpha r}}{\alpha} \left(r - \frac{1}{\alpha} \right)$, $\int r^2 e^{\alpha r} dr = \frac{e^{\alpha r}}{\alpha} \left(r^2 - \frac{2r}{\alpha} + \frac{2}{\alpha^2} \right)$

5.12

5.13 do only carbon on part (d)