Ensembles, Estimating, Gaussians HW 1 (CT- 10)

1. Let $p(x) = \frac{1}{\pi a} \cdot \frac{1}{1 + x^2/a^2}$ ("Lorentz Distribution")

What is $\hat{p}(\omega)$? Do the requirements of the Central Limit Thm hold for p?

2. Let $p(x)$ be an even-symmetric distribution, i.e., $p(x) = p(-x)$.

Write the cumulants A_0, A_1, A_2, A_3, A_4 in terms of the moments of p.