

[#2]

5.6.7)

Expand a function  $\Phi(x, y, z)$  by Taylor's expansion. Evaluate  $\bar{\Phi}$ , the average value of  $\Phi$ , averaged over a small cube of side  $a$  centered on the origin and show that the Laplacian of  $\Phi$  is a measure of deviation of  $\Phi$  from  $\Phi(0, 0, 0)$ .