

海洋大學河海工程學系 2004 工程數學(三)3AB 班第三次小考

Given $T(x, y, z) = x + y + z$

Find

(1) $\nabla T = ?$

(2) $\frac{\partial T}{\partial \tilde{n}} = ?$

where

(a) $\tilde{n} = (1, 0, 0)$

(b) $\tilde{n} = (0, 1, 0)$

(c) $\tilde{n} = (0, 0, 1)$

(d) $\tilde{n} = (\frac{1}{3}, \frac{2}{3}, \frac{2}{3})$