

AINA OLUNWAGBOLAHAN EMMANUEL

191ENG041002 (Elect/Elect)

$$1) A = (6u^2 + 8)i + (4u - 10)j + 8u^3k$$

$$B = 3ui + (2u - 5)j + 5k$$

$$A \cdot B = 3u(6u^2 + 8) + [(2u - 5)(4u - 10)] + 5(8u^3)$$

$$A \cdot B = 18u^3 + 24u + 8u^2 - 40u + 50 + 40u^3$$

$$A \cdot B = 58u^3 + 8u^2 - 16u + 50$$

$$\frac{dA \cdot B}{du} = 174u^2 + 16u - 16$$

$$ii) \frac{dA}{du} = 12ui + 4j + 24u^2k$$