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19/Engo2/012  
Computer engineering  
Maths 102

$$1) \quad A = (6t^2 + 8)i + (4t - 10)j + 8t^3k$$
$$B = 3t i + 2(2t - 5)j + 5k$$

$$2) \quad \frac{d}{dt}(A \cdot B) = (6t^2 + 8) i + (4t - 10)j + 8t^3k \cdot$$
$$(3t i) + 2(2t - 5)j + 5k$$

$$(18t^3 + 24t) i + (8t^2 - 40t + 50)j + 40t^2k$$

$$3) \quad \frac{dA}{dt} = (5t^2 + 24) i + (16t - 40)j + (12t^2)k$$