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Computer Engineering

MAT 102

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

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

$$(i) \frac{d}{du} (A \cdot B) = (6u^2 + 8)i + (4u - 10)j + 8u^3k \cdot (3ui + 2(2u - 5)j + 5k)$$
$$= (18u^3 + 24u)i + (8u^2 - 40u + 50)j + 40u^3k$$

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