Name: Nwokorie Patrick Chinedu
Department: Computer Engineering
Course: MAT 102
Matric No: 19/ENG02/036

$A = 3i + 4j - 6k$, $B = 5i - 11j + 2k$, $C = 7i - 7j + k$

(01) $A \cdot C + B \cdot C$

$(3i + 4j - 6k)(7i - 7j + k) + (5i - 11j + 2k)(7i - 7j + k)$

$(21i - 28j - 6k) + (35i + 77j + 2k)$

$(56i + 49j - 4k)$

(02) $(A - B) \cdot C$

$(3i + 4j - 6k - 5i - 11j + 2k) \cdot (7i - 7j + k)$

$(-2i - 7j - 4k) \cdot (7i - 7j + k)$

$(-14i + 49j - 4k)$

(03) $A \cdot (B \times C)$

$(3i + 4j - 6k) \cdot (5i - 11j + 2k \times 7i - 7j + k)$

$(3i + 4j - 6k) \cdot (35i + 77j + 2k)$

$(105i + 308j - 12k)$