

Contoh Ams. dikan

Matros

17/20/04/1017

$$A = 3i + 4j - 6k$$

$$B = 5i - 11j + 2k$$

$$C = 7i - 7j + 6k$$

1 $A \cdot C + B \cdot C$

$$\begin{aligned} A \cdot C &= (3 \times 7) + (4 \times -7) + (-6 \times 6) \\ &= 21 + 28 + (-6) \\ &= 43 \end{aligned}$$

$$\begin{aligned} B \cdot C &= 35 + 77 + 2 \\ &= 114 \end{aligned}$$

$$\begin{aligned} A \cdot C + B \cdot C &= 43 + 114 \\ &= 157 \end{aligned}$$

2 $(A-B) \cdot E$

$$A-B = -2i + 14j - 8k$$

$$\begin{aligned} (A-B) \cdot E &= -14 + 98 - 8 \\ &= 120 \end{aligned}$$

3 $A \cdot (B \times C)$

$$B \times C = \begin{vmatrix} 5 & -11 & 2 \\ 7 & -7 & 1 \end{vmatrix}$$

$$\begin{aligned} A \cdot (B \times C) &= \begin{vmatrix} 3 & 4 & -6 \\ 5 & -11 & 2 \\ 7 & -7 & 1 \end{vmatrix} \end{aligned}$$

$$3(-11 + 14) + 4(5 - 14) - 6(-35 + 77)$$

$$= 9 - 36 - 252$$

$$= -279$$