

Vektor

Hasil Darab Bintik (*Dot Product*) dan Hasil Darab Pangkah (*Cross Product*)

Standard Pembelajaran

- Hasil darab bintik (*Dot Product*) antara dua vektor.
- Hasil darab pangkah (*Cross Product*) antara dua vektor.



Boost Your Curiosity

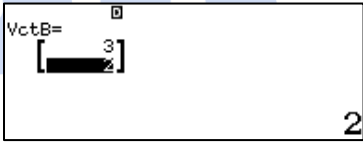
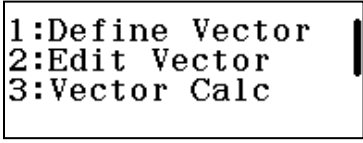
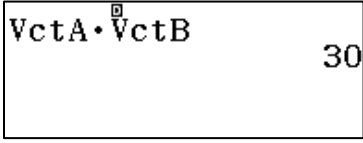
Hasil Darab Bintik (*Dot Product*)

1. Jika vektor $A = 4i + 9j$ dan vektor $B = 3i + 2j$, cari

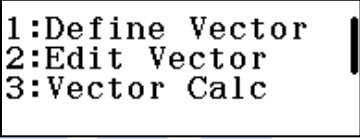
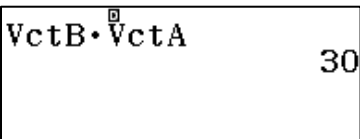
- $A \cdot B$
- $B \cdot A$
- $A \cdot A$

Penyelesaian:

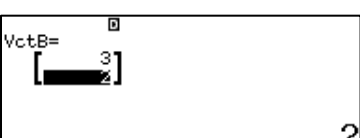
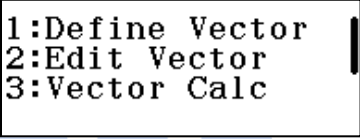
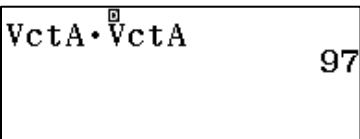
a) $A \cdot B$

Arahan	Paparan Skrin Kalkulator
MENU 5 1 2	
Takrifkan vektor $A = 4i + 9j$ sebagai 'VctA'. 4 = 9 =	
Takrifkan vektor $B = 3i + 2j$ sebagai 'VctB'. OPTN 1 2 2 3 = 2 =	
OPTN 3	
Cari $A \cdot B$. OPTN 3 OPTN ▼ 2 OPTN 4 =	 

b) $B \cdot A$

Arahan	Paparan Skrin Kalkulator
MENU 5 1 2	
Takrifkan vektor $A = 4i + 9j$ sebagai 'VctA'. 4 = 9 =	
Takrifkan vektor $B = 3i + 2j$ sebagai 'VctB'. OPTN 1 2 2 3 = 2 =	
OPTN 3	
Cari $B \cdot A$. OPTN 4 OPTN ▼ 2 OPTN 3 =	 

c) $A \cdot A$

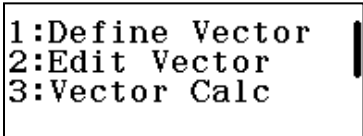
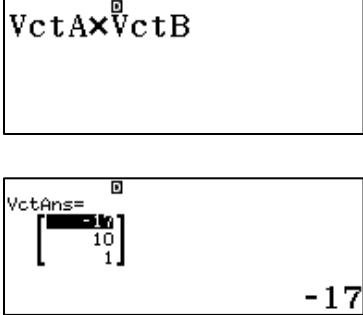
Arahan	Paparan Skrin Kalkulator
MENU 5 1 2	
Takrifkan vektor $A = 4i + 9j$ sebagai 'VctA'. 4 = 9 =	
Takrifkan vektor $B = 3i + 2j$ sebagai 'VctB'. OPTN 1 2 2 3 = 2 =	
OPTN 3	
Cari $A \cdot A$. OPTN 3 OPTN ▼ 2 OPTN 3 =	 

Hasil Darab Pangkah (*Cross Product*)

2. a) Jika vektor $A = 3i + 5j + k$ dan vektor $B = i + 2j - 3k$, tentukan $A \times B$.

Penyelesaian:

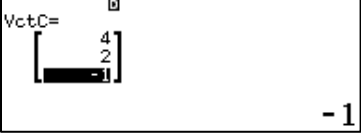
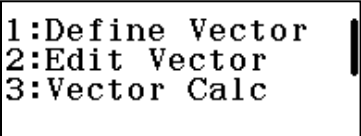
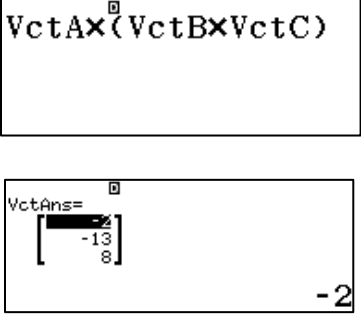
a)

Arahan	Paparan Skrin Kalkulator
MENU 5 1 3	
Takrifkan vektor $A = 3i + 5j + k$ sebagai 'VctA'. 3 = 5 = 1 =	
Takrifkan vektor $B = i + 2j - 3k$ sebagai 'VctB'. OPTN 1 2 3 1 = 2 = (-) 3 =	
OPTN 3	
Cari $A \times B$. OPTN 3 X OPTN 4 =	 Maka, $A \times B = -17i + 10j + k$

- b) Diberi bahawa vektor $A = i - 2j - 3k$, vektor $B = 2i - 3j + 2k$ dan vektor $C = 4i + 2j - k$. Cari $A \times (B \times C)$.

Penyelesaian:

b)

Arahan	Paparan Skrin Kalkulator
MENU 5 1 3	
Takrifkan vektor $A = i - 2j - 3k$ sebagai 'VctA'. 1 = (←) 2 = (←) 3 =	
Takrifkan vektor $B = 2i - 3j + 2k$ sebagai 'VctB'. OPTN 1 2 3 2 = (←) 3 = 2 =	
Takrifkan vektor $C = 4i + 2j - k$ sebagai 'VctB'. OPTN 1 3 3 4 = 2 = (←) 1 =	
OPTN 3	
Cari $A \times (B \times C)$. OPTN 3 × () OPTN 4 × OPTN 5) =	

Maka, $A \times (B \times C) = -2i - 13j + 8k$