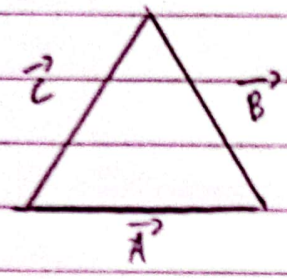
Nama: Puput Rahayu
Npm: 2253022001

No.: Soal 1 Date.:



$\vec{A} + \vec{B} = \vec{C}$

$\vec{A} = \hat{i} + 2\hat{j} + 0\hat{k}$

$\vec{B} = -\hat{i} + 2\hat{j} + 3\hat{k}$

Hitung Vektor c

Hitung Sudut $\vec{AB}$

$\vec{A} \cdot \vec{B} = (\hat{i} + 2\hat{j} + 0\hat{k}) \cdot (-\hat{i} + 2\hat{j} + 3\hat{k})$

$= -1 + 4\hat{j} + \hat{k} = 6 - 5$

$-5 = |\vec{A}| \cdot |\vec{B}| \cos\theta$

$-5 = \sqrt{5}\ \sqrt{14} \cos\theta$

$\theta = \text{Arc} \quad -5$

$= \sqrt{5}\ \sqrt{14}$.

KIKY

No. :

Date. :

~~$\vec{A} \quad \vec{B} \quad \vec{C}$~~

$\vec{A} = 2x\hat{i} + 3x^2\hat{j} + 4xy\hat{k}$

$\vec{B} = xy\hat{i} + 2x\hat{j} + 3x\hat{k}$

$\vec{A} \times \vec{B}$

	$\hat{i}$	$\hat{j}$	$\hat{k}$
	$2x$	$3x^2$	$4xy$
	xy	$2x$	$3x\hat{k}$

$(\hat{i}) = (9x^3 - B^2 x\hat{k}) - \hat{j}\,(6x^2 - 4y)$

$- \hat{k}\,(\quad - 4x^2y - 4x^2)$

No. :

Date :

Hitung divergensi Vektor berikut:

a) $V_1 = x^2\hat{i} + 3xz^2\hat{j} - z^2z\hat{k}$

b) $\vec{v}_2 = xy\hat{i} + 2yz\hat{j} + 3xz\hat{k}$

c) $\vec{v}_3 = y^2\hat{i} + (2xy + z^2)\hat{j} - 2yz\hat{k}$

Jawab:

$\nabla_1 \vec{v}_1 = 2x + 0\hat{j} - 2x$

$\nabla . \vec{v}^2 = y + 2z + 3x$

$\nabla . \vec{v}^3 = 0\hat{i} + (2x + z^2) - 2y$

$= 0i + 2x - 2y.$