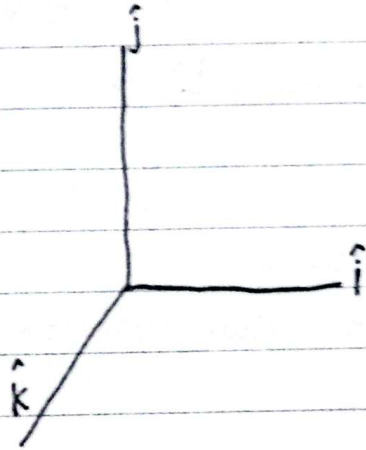


Vektor.

$$\vec{x} = x_1 \hat{i} + x_2 \hat{j} + x_3 \hat{k}$$

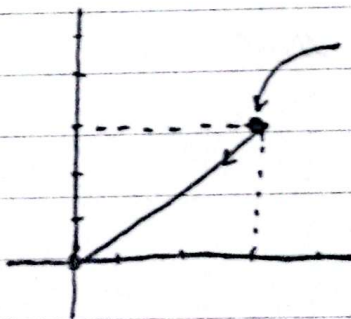
$$\hat{r} = x\hat{i} + y\hat{j} + z\hat{k}$$

$$\vec{v} = v_1 \hat{i} + v_2 \hat{j} + v_3 \hat{k}$$



$$\hat{r} = \frac{\vec{r}}{|\vec{r}|} = \frac{x\hat{i} + y\hat{j} + z\hat{k}}{\sqrt{x^2 + y^2 + z^2}}$$

example:



$$F \cdot q = k \frac{q_1 q_2}{r^2}$$

$$= k \frac{q_1 q_2}{5^2} \left(\frac{4\hat{i} + 3\hat{j}}{5} \right)$$

$$\vec{a} = 3\hat{i} + 4\hat{j} - 3\hat{k}$$

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

Pemaliran dot

1) $\vec{a} \cdot \vec{a} = (3\hat{i} + 4\hat{j} - 3\hat{k}) \cdot (3\hat{i} + 4\hat{j} - 3\hat{k}) = (3 \cdot 3) + (4 \cdot 4) - (3 \cdot 3) = 16$

2) $\vec{a} \times \vec{b} =$

3) $\vec{a} \cdot \vec{b} = (3\hat{i} + 4\hat{j} - 3\hat{k}) \cdot (2\hat{i} - 3\hat{j} + 2\hat{k}) = (3 \cdot 2) + (4 \cdot -3) - (6 \cdot 2)$
 $= 6 - 12 - 6 = -12.$

2) $\vec{a} \times \vec{b} = \begin{vmatrix} \hat{i} & \hat{j} & \hat{k} \\ 3 & 4 & -3 \\ 2 & -3 & 2 \end{vmatrix}$

Pemaliran Cross

Caranya
 i nya turun ($1 \times k$) secara
 selang
 begitu selanjutnya

$$= \hat{i}(8 - 9) + \hat{j}(6 + 6) + \hat{k}(-9 - 8)$$

$$= -\hat{i} + 12\hat{j} - 17\hat{k}.$$

masi bingung.