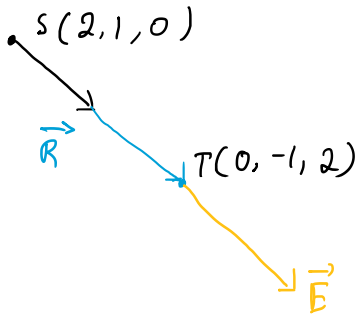
$Q = 2\ nC$



$$\vec{E} = k\frac{Q}{R^2}\vec{a}_R$$

$$= 9.10^9\ \frac{Q}{R^2}\vec{a}_R$$

$$\vec{R} = (0-2)\vec{a}_x + (-1-1)\vec{a}_y + (2-0)\vec{a}_z$$

$$= -2\vec{a}_x - 2\vec{a}_y + 2\vec{a}_z$$

Jarak $R = |\vec{R}| = \sqrt{(-2)^2 + (-2)^2 + 2^2}$

$$= \sqrt{12} = 2\sqrt{3}$$

$$\vec{a}_R = \frac{\vec{R}}{|\vec{R}|} = \frac{-\vec{a}_x - \vec{a}_y + \vec{a}_z}{\sqrt{3}}$$

$$\vec{E} = 9.10^9 \cdot \frac{2.10^{-9}}{(2\sqrt{3})^2} \cdot \left(\frac{-\vec{a}_x - \vec{a}_y + \vec{a}_z}{\sqrt{3}}\right)$$

$$= \frac{9 \cdot \cancel{2}_{1}}{\cancel{4}_{2} \cdot 3}\left(\frac{-\vec{a}_x - \vec{a}_y + \vec{a}_z}{\sqrt{3}}\right)$$

$$= \frac{(\sqrt{3})^4}{2(\sqrt{3})^3}(-\vec{a}_x - \vec{a}_y + \vec{a}_z)$$

$$= -0,866\ \vec{a}_x - 0,866\vec{a}_y + 0,866\ \vec{a}_z$$

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Jawaban soal No. 1 sampai 4 pada video 1