

What is the displacement vector between $(3, 1, 3)$ and $(1, 3, 4)$?

Note Title

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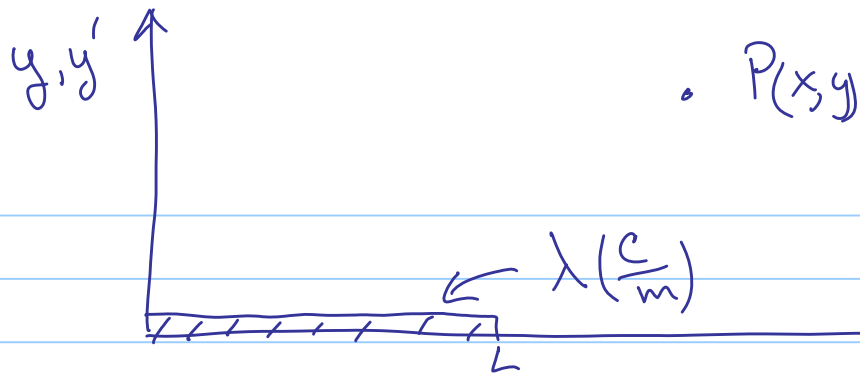
(1) $2\hat{i} - 2\hat{j} + 2\hat{k}$

(2) $2\hat{i} - 2\hat{j} - 2\hat{k}$

(3) $-2\hat{i} + 2\hat{j} + 2\hat{k}$ ✓

(4) none of these

(5) don't know



Electric field at P is proportional to

$$(1) \int_0^L \frac{\lambda dx' [(x'-x)\hat{i} + y\hat{j}]}{[(x'-x)^2 + y^2]^{3/2}}$$

$$(2) \int_0^L \frac{\lambda dx' [(x'-x)\hat{i} - y\hat{j}]}{[(x'-x)^2 + y^2]^{3/2}}$$

✓ (3) none of above

(4) I don't know

Charge is uniformly distributed on the surface of a spherical shell. dq is

✓ (1) $\sigma R'^2 \sin\theta' d\theta' d\phi'$

(3) $\sigma R' \sin\theta' d\theta' d\phi'$

(2) $\sigma R'^2 \sin^2\theta' d\theta' d\phi'$

(4) none (5) don't know

