

Quiz 4

Consider the set of three charges below. What is the electric potential produced at the origin?

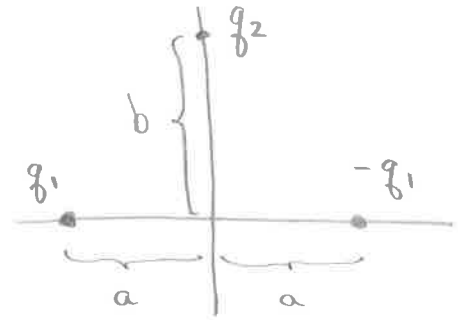
(a) $\frac{1}{4\pi\epsilon_0} \frac{q_2}{b} \hat{i}_y$

(b) $\frac{1}{4\pi\epsilon_0} \left[\frac{2q_1}{a} \hat{i}_x + \frac{q_2}{b} \hat{i}_y \right]$

(c) $\frac{1}{4\pi\epsilon_0} \frac{q_2}{b}$

(d) $\frac{1}{4\pi\epsilon_0} \left[\frac{2q_1}{a} + \frac{q_2}{b} \right]$

(e) None of above



Quiz 4

Consider the charge $+q$ placed in a uniform electric field of magnitude E and direction θ relative to the y -axis. The charge is free to slide on a frictionless wire along the x -axis and released from rest. What is the charge's kinetic energy after it has traveled a distance d ?

(a) Ed

(b) $Ed \cos \theta$

(c) $Ed \sin \theta$

(d) $-Ed$

(e) None of above

