Problem 6) Two charges, each equal to q, are kept at $x = -a$ and $x = a$ on the x-axis. A particle of mass m and charge $q_0 = q/2$ is placed at the origin. If charge q0 is given a small displacement (y <<a) along the y-axis, the net force acting on the particle is proportional to :

(1) y
(2) −y
(3) 1/y
(4) − 1/y

Ans) 1