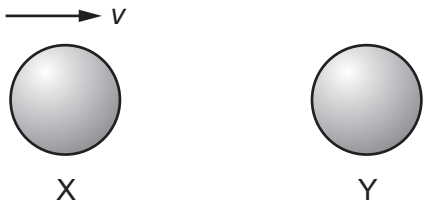
10 The diagram shows two identical spheres X and Y.

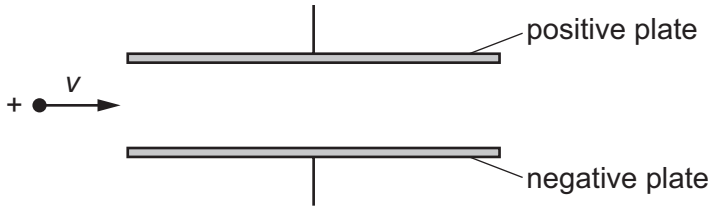


Initially, X moves with speed *v* directly towards Y. Y is stationary. The spheres collide elastically.

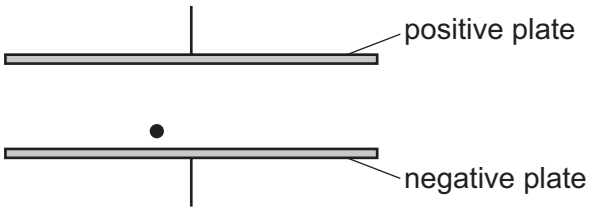
What happens?

	X	Y
A	moves with speed $\frac{1}{2}v$ to the right	moves with speed $\frac{1}{2}v$ to the right
B	moves with speed *v* to the left	remains stationary
C	moves with speed $\frac{1}{2}v$ to the left	moves with speed $\frac{1}{2}v$ to the right
D	stops	moves with speed *v* to the right

11 A positively-charged particle of negligible mass, moving at constant velocity *v* in a vacuum, enters a uniform electric field between two parallel plates, as shown.



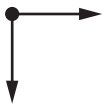
A short time later, the particle is at the position shown.



Which diagram represents the force or forces acting on the particle?

A

B



C

D