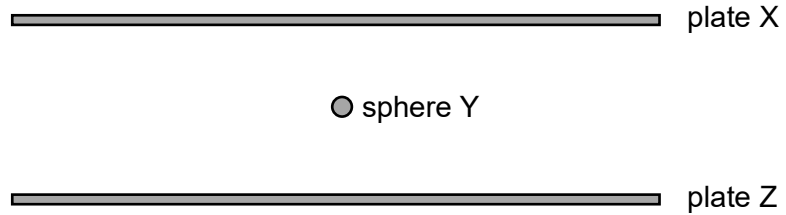


- 22** The diagram shows two charged horizontal metal plates X and Z with a potential difference set up between them. A small sphere Y with charge  $Q$  is suspended and remain stationary at the midpoint between the plates.



What will happen to sphere Y when its charge increases?

- A** Sphere Y will accelerate downwards and hit plate Z
- B** Sphere Y will move down nearer to plate Z and remain stationary.
- C** Sphere Y will accelerate upwards and hit plate X.
- D** Sphere Y will move up nearer to plate X and remain stationary.