

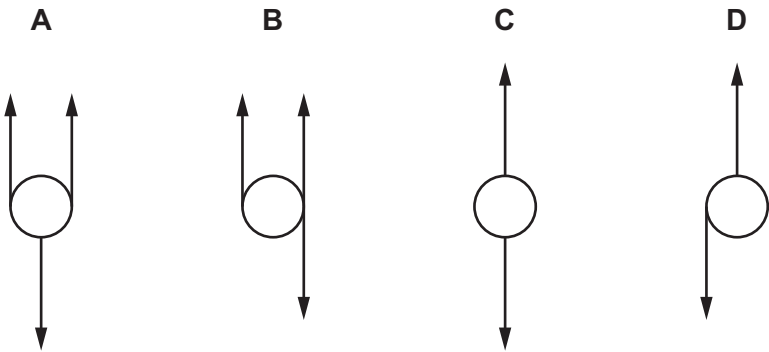
- 11 A particle with mass and charge is moving from left to right in a uniform gravitational field and a uniform electric field. The gravitational field is downwards. The gravitational force and the electric force on this particle act in opposite directions.

What could be the sign of the charge on the particle and the direction of the electric field?

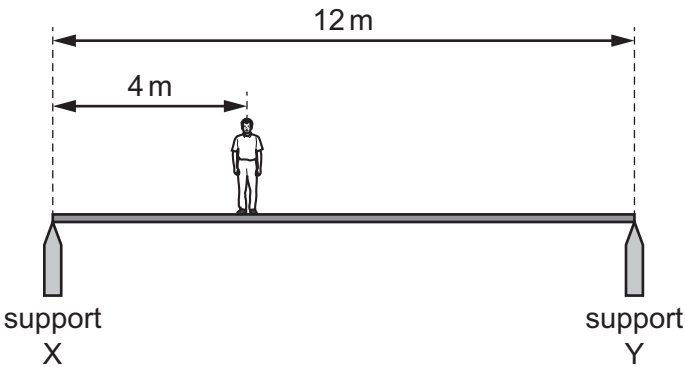
	sign of charge	direction of electric field
A	negative	down
B	negative	up
C	positive	left
D	positive	right

- 12 A sphere is acted upon by various forces, all of the same magnitude.

Which system of forces provides a resultant torque but zero resultant force on the sphere?



- 13 A uniform horizontal footbridge is 12 m long and weighs 4000 N. It rests on two supports X and Y as shown.



A man of weight 600 N is a distance of 4 m from support X.

What is the upward force on the footbridge from support X?

- A 2200 N B 2300 N C 2400 N D 2600 N