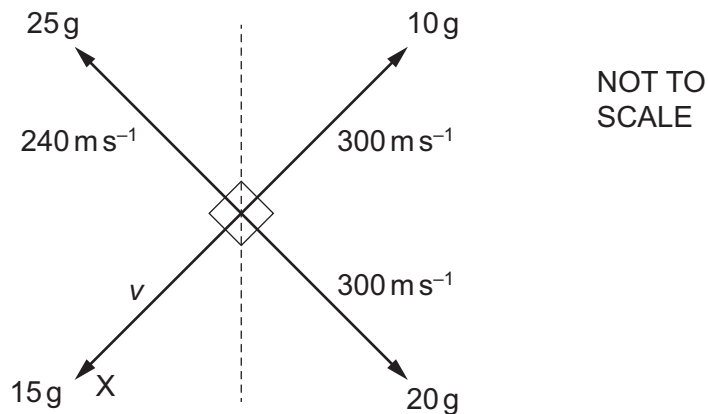
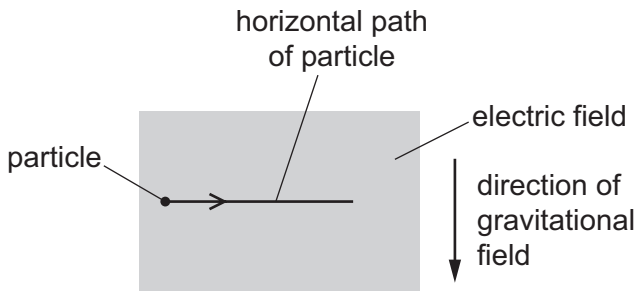


- 10 A stationary firework explodes into four fragments which travel in different directions in a horizontal plane. The diagram shows the velocity and mass of each fragment.



What is the speed v of fragment X?

- A 200 ms^{-1} B 240 ms^{-1} C 300 ms^{-1} D 360 ms^{-1}
- 11 A particle with mass moves in a horizontal straight line through a uniform electric field in a vacuum. The electric field is vertical.



There is a significant gravitational effect on the motion of the particle.

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

	electric field direction	sign of charge
A	downwards	negative
B	downwards	positive
C	upwards	negative
D	upwards	no charge