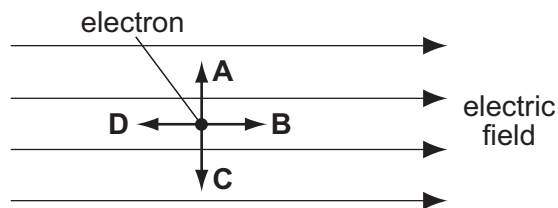
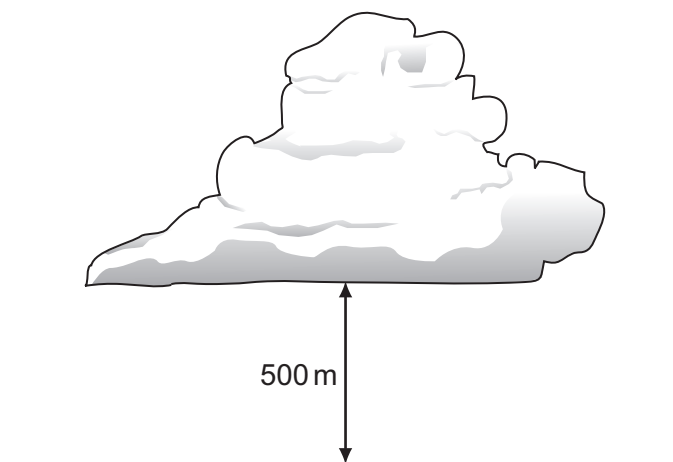


- 29 The diagram shows an electron in a uniform electric field.

In which direction will the field accelerate the electron?



- 30 The diagram shows a thundercloud whose base is 500 m above the ground.



The potential difference between the base of the cloud and the ground is 200 MV. A raindrop with a charge of  $4.0 \times 10^{-12} \text{ C}$  is in the region between the cloud and the ground.

What is the electrical force on the raindrop?

- A  $1.6 \times 10^{-6} \text{ N}$     B  $8.0 \times 10^{-4} \text{ N}$     C  $1.6 \times 10^{-3} \text{ N}$     D  $0.40 \text{ N}$
- 31 Two wires made of the same material and of the same length are connected in parallel to the same voltage supply. Wire P has a diameter of 2 mm. Wire Q has a diameter of 1 mm.

What is the ratio  $\frac{\text{current in P}}{\text{current in Q}}$  ?

- A  $\frac{1}{4}$     B  $\frac{1}{2}$     C 2    D 4
- 32 What is an equivalent unit to 1 volt?
- A  $1 \text{ J A}^{-1}$     B  $1 \text{ J C}^{-1}$     C  $1 \text{ W C}^{-1}$     D  $1 \text{ W s}^{-1}$