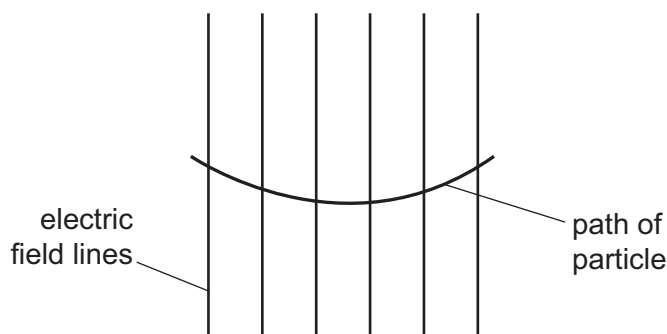
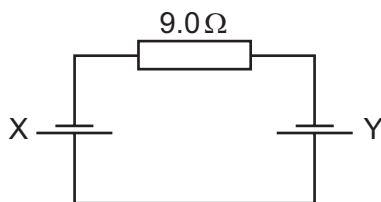


- 30 The diagram shows the path of a charged particle through a uniform electric field, having vertical field lines.



What could give a path of this shape?

- A a positive charge travelling left to right in a field directed downwards
 - B a positive charge travelling right to left in a field directed downwards
 - C a negative charge travelling right to left in a field directed upwards
 - D a negative charge travelling left to right in a field directed downwards
- 31 Two cells X and Y are connected in series with a resistor of resistance 9.0Ω , as shown.



Cell X has an electromotive force (e.m.f.) of 1.0V and an internal resistance of 1.0Ω . Cell Y has an e.m.f. of 2.0V and an internal resistance of 2.0Ω .

What is the current in the circuit?

- A 0.25A B 0.17A C 0.10A D 0.083A

Space for working