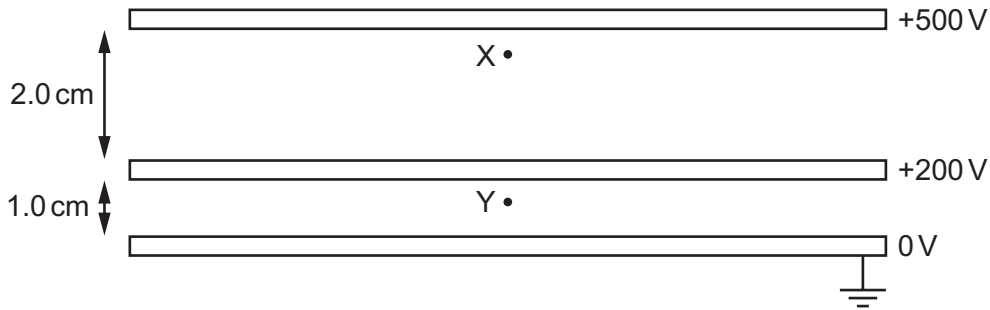


- 30** Three parallel metal plates of the same area are fixed with a separation of 2.0 cm between the top plate and the centre plate, and 1.0 cm between the centre plate and the bottom plate. The top plate is held at a potential of +500 V, the middle plate at +200 V and the bottom plate is earthed, as shown.



What is the value of the ratio $\frac{\text{magnitude of force on an electron at X}}{\text{magnitude of force on an electron at Y}}$?

- A** 0.75 **B** 1.00 **C** 1.25 **D** 1.50

- 31** The diagram shows a graph