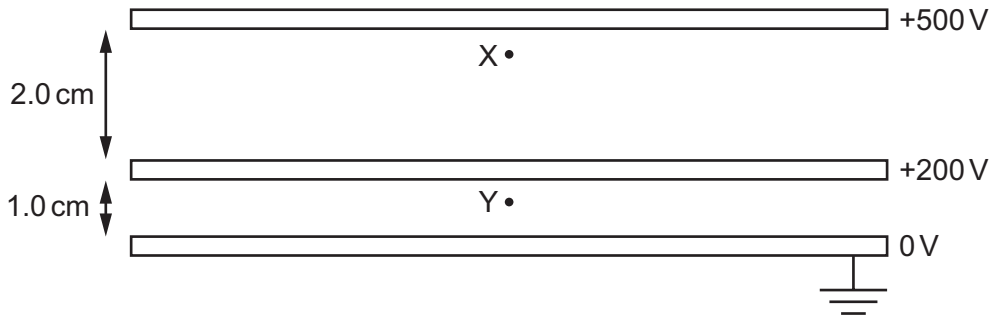


- 31** Three parallel metal plates of the same area are fixed with a separation of 2.0 cm between the top plate and the middle plate, and 1.0 cm between the middle plate and the bottom plate. The top plate is held at a potential of +500 V, the middle plate at +200 V and the bottom plate is earthed, as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