20 Two horizontal metal plates A and B are situated a distance *d* apart in a vacuum.

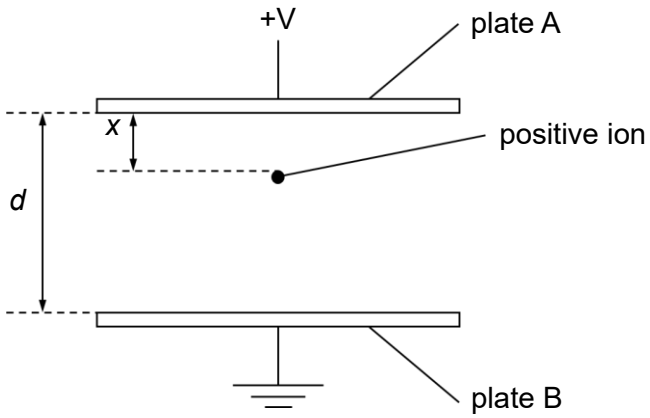

Plate A is at a potential of +V and plate B is earthed. A positive ion is initially placed at rest in the region of the uniform electric field where its distance *x* from plate A is zero.

Any change in gravitational potential energy of the positive ion is negligible compared with any change in electric potential energy.

Which of the following statements is correct as it moves from $x = \frac{d}{4}$ to $x = \frac{3d}{4}$?

A The energy gained by the positive ion is directly proportional to d.

B The energy gained by the positive ion is directly proportional to d^2.

C The energy gained by the positive ion is independent of d.

D The energy gained by the positive ion is inversely proportional to d.