8 In a cathode-ray tube, an electron is accelerated uniformly in a straight line from a speed of $4 \times 10^3\,m\,s^{-1}$ to $2 \times 10^7\,m\,s^{-1}$ over a distance of 10 mm.

What is the acceleration of the electron?

A $2 \times 10^3\,m\,s^{-2}$

B $2 \times 10^6\,m\,s^{-2}$

C $2 \times 10^{13}\,m\,s^{-2}$

D $2 \times 10^{16}\,m\,s^{-2}$

Space for working