

- 32** A charged particle of charge  $q$  and mass  $m$  is initially at rest in a uniform electric field. The field is produced by parallel metal plates separated by a distance  $d$  and having a potential difference  $V$  between them.

What is an expression for the acceleration of the charged particle?

**A**  $\frac{md}{qV}$

**B**  $\frac{mV}{qd}$

**C**  $\frac{qd}{mV}$

**D**  $\frac{qV}{md}$

- 33** When there is a current of  $5.0\text{ A}$  in a copper wire, the average drift velocity of the free electrons is