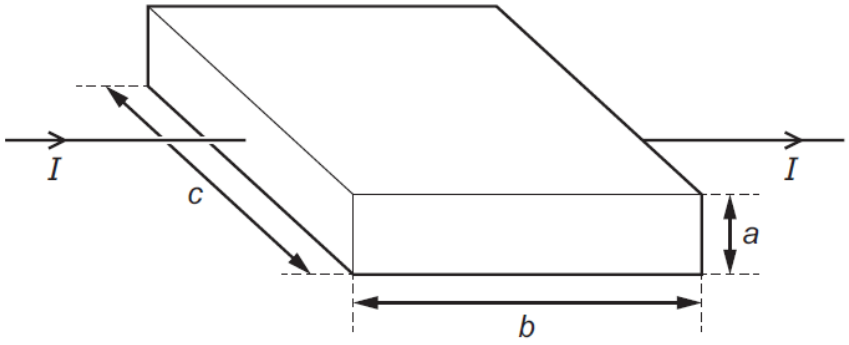
18 The diagram shows a metal block.



The block has sides of length *a*, *b* and *c* as shown, and its volume is *V*. Each charge carrier has a charge $-q$ and the number density of the charge carriers in the metal is *n*. It takes each charge carrier an average time of *t* to pass through the block.

What is an expression for the current I?

A $I = nqabc$

B $I = \frac{nqV}{t}$

C $I = \frac{nqbc}{t}$

D $I = nqaV$