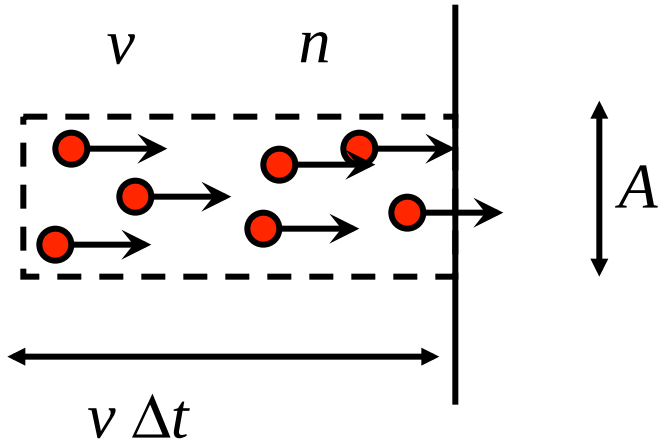
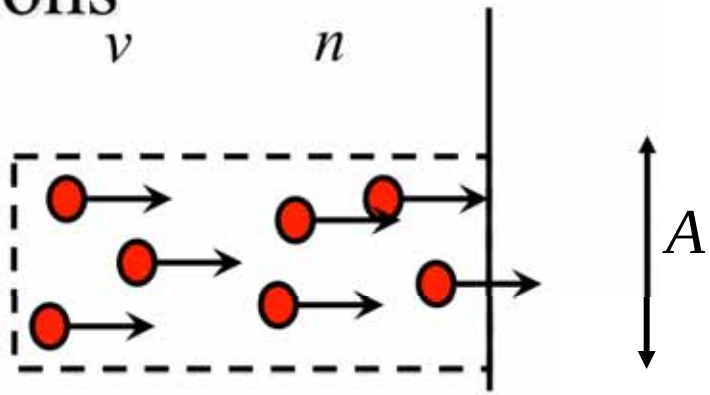
A set of sodium ions (Na+) are flowing across an area A at a velocity v. If the speed of the ions doubles, the current across A



1. Doubles
2. Halves
3. Stays the same
4. Changes in some other way
5. There is not enough information to decide.

A set of sodium ions (Na+) are flowing across an area A at a velocity v. If the area the ions are crossing doubles (spreading out the same ions), the current across A



1. Doubles
2. Halves
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5. There is not enough information to decide.

For steady flow, which is true?

1. $qE > bv$ (The electric force on a charge is bigger than the drag.)
2. $qE = bv$ (The electric force on a charge is equal to the drag.)
3. $qE < bv$ (The electric force on a charge is less than the drag.)

How does the voltage change relate to the E field? (assuming E is constant)

1. $\Delta V = EL$
2. $\Delta V = E/L$
3. $\Delta V = L/E$
4. Other