21 Two solid substances P and Q have atoms of mass M_P and M_Q respectively. They have n_P and n_Q atoms per unit volume.

The density of P is greater than the density of Q.

What **must** be correct?

- $\mathbf{A} \quad M_{\mathsf{P}} > M_{\mathsf{Q}}$
- $\mathbf{B} \quad n_{\mathsf{P}} > n_{\mathsf{Q}}$
- $\mathbf{C} \quad M_{\mathsf{P}} \, n_{\mathsf{P}} > M_{\mathsf{Q}} \, n_{\mathsf{Q}}$
- $\mathbf{D} \qquad \frac{M_{\rm P}}{n_{\rm P}} > \frac{M_{\rm Q}}{n_{\rm Q}}$
- **22** The table summarises some descriptions of evaporation.

Which row of the table is correct?

	involves a change in state from liquid to vapour	occurs at a fixed temperature	involves a reduction in the average kinetic energy of the remaining atoms
Α	true	true	true
В	true	false	true
С	true	false	false
D	false	true	false

Space for working