

- 26** Electrons and protons in two beams are travelling at the same speed. The beams are diffracted by objects of the same size.

Which correctly compares the de Broglie wavelength  $\lambda_e$  of the electrons with the de Broglie wavelength  $\lambda_p$  of the protons and the width of the diffraction patterns that are produced by these beams?

	comparison of de Broglie wavelength	diffraction pattern
<b>A</b>	$\lambda_e < \lambda_p$	electron beam width > proton beam width
<b>B</b>	$\lambda_e < \lambda_p$	electron beam width < proton beam width
<b>C</b>	$\lambda_e > \lambda_p$	electron beam width > proton beam width
<b>D</b>	$\lambda_e > \lambda_p$	electron beam width < proton beam width