

- 15** A wave of frequency  $f$  and wavelength  $\lambda$  has intensity  $I$ . The wave travels through a boundary into a new medium where the speed and amplitude are both halved.

What will be the intensity, frequency and wavelength in the new medium?

	intensity	frequency	wavelength
<b>A</b>	$0.25I$	$0.50f$	$\lambda$
<b>B</b>	$0.25I$	$f$	$0.50\lambda$
<b>C</b>	$0.50I$	$0.50f$	$\lambda$
<b>D</b>	$0.50I$	$f$	$0.50\lambda$

- 16** Monochromatic light is incident normally on a diffraction grating. First and second order images