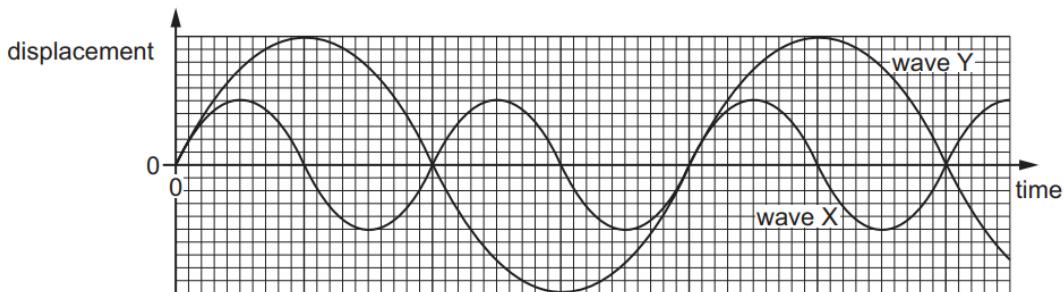


- 15** The graph shows the variation with time of displacement for two transverse waves X and Y travelling through the same medium. For such mechanical waves, intensity is proportional to the square of frequency.



Wave X has frequency  $f$  and intensity  $I$ .

What is the frequency and intensity of wave Y?

	frequency	intensity
A	$\frac{f}{2}$	$4I$
B	$\frac{f}{2}$	$I$
C	$2f$	$I$
D	$2f$	$4I$

- 16** Two polarising filters are placed next to each other so that their planes are parallel. The first