Question Number	Answer		Mark
18(a)	Wave (on string) is reflected	**(1)**	
	At the end/peg/bridge	**(1)**	
	Superposition/interference takes place	**(1)**	**3**
18(b)	Use of $v = \sqrt{\frac{T}{\mu}}$	**(1)**	
	Use of $v = f\lambda$	**(1)**	
	And $\lambda = 2L$	**(1)**	
	$f = 293$ (Hz, which is closest to) String 2	**(1)**	**4**
	Example of calculation $v = \sqrt{\frac{T}{\mu}} = \sqrt{\frac{71.5\ \text{N}}{2.03 \times 10^{-3}\ \text{kg m}^{-1}}} = 187.7\ \text{m s}^{-1}$ $v = f\lambda$, so $f = 187.7\ \text{m s}^{-1} / (2 \times 0.32\ \text{m}) = 293\ \text{Hz}$		
18(c)	Waves have the same frequency/period	**(1)**	
	Waves have different speeds/wavelengths	**(1)**	
	Sound wave has same amplitude for all points **and** stationary wave does not	**(1)**	
	Sound waves transfer energy **and** stationary waves do not	**(1)**	
	Waves on string are transverse **and** sound waves are longitudinal	**(1)**	**5**
	(MP2 – do not allow contradictions e.g. "they have different speeds but the same wavelength")		
	Total for question 18		**12**