

Q2.

Question Number	Acceptable Answer	Additional Guidance	Mark
	<ul style="list-style-type: none"> • use of $\frac{\Delta\lambda}{\lambda} = \frac{v}{c}$ with $\lambda = 656.2 \text{ nm}$ (1) • $v = 9 \times 10^4 \text{ m s}^{-1}$ (1) • the star is moving towards the Earth (1) 	<p><u>Example of calculation:</u></p> $v = \left(\frac{(656.2 - 656.0) \times 10^{-9} \text{ m}}{656.2 \times 10^{-9} \text{ m}} \right) \times 3.00 \times 10^8 \text{ ms}^{-1}$ $= 9.14 \times 10^4 \text{ ms}^{-1}$	3