

2 A hydrogen source on Earth emits a spectral line with a wavelength of 410 nm.

An observer determines the wavelength of the same line in the spectrum of a star.  
The star is moving away from the Earth at 2.5% of the speed of light.

What is the wavelength of the line as determined by the observer?

- ☐ A 400 nm
- ☐ B 410 nm
- ☐ C 420 nm
- ☐ D 430 nm

(Total for Question 2 = 1 mark)