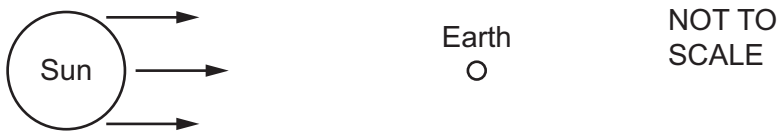
25 Light of a particular wavelength λ_s is emitted from the Sun. At any instant, a band of wavelengths ranging from less than λ_s to more than λ_s is observed on the Earth. This is caused by the Doppler effect.



What could be the explanation for this Doppler effect?

A The Sun is moving at right-angles to a line joining the Sun and the Earth.

B The Sun is moving away from the Earth.

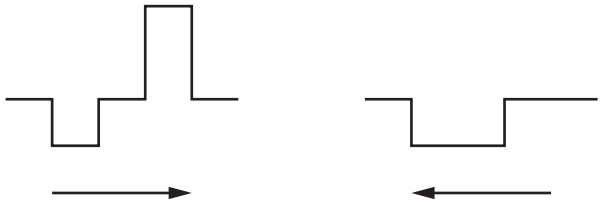
C The Sun is moving towards the Earth.

D The Sun is rotating.

26 What is the order of magnitude of the frequencies of electromagnetic waves in the visible spectrum?

A 10^{10} Hz **B** 10^{12} Hz **C** 10^{14} Hz **D** 10^{16} Hz

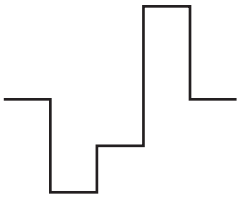
27 Two signals approach each other, as shown.



At one instant, the signals completely overlap.

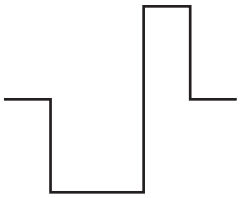
According to the principle of superposition, what is the shape of the resulting signal at this instant?

A



B

C



D