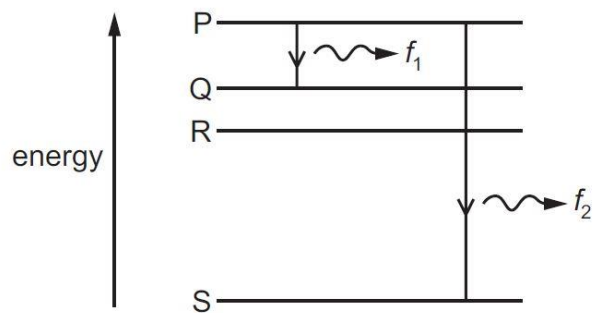


- 27 The energy level diagram shows four energy levels for the electrons.



Two electron transitions are also shown together with the frequencies  $f_1$  and  $f_2$  of the emitted photons.

Which statement is **not** correct?

- A All the emitted photons have the same speed.
- B The frequency of the photon emitted is  $f_2 - f_1$  for the transition Q to S.
- C The longest wavelength is for the transition Q to R.
- D There are five possible spectral lines for these four energy levels.