

- 27** The figure shows the four lowest energy levels of a hydrogen atom. It is known that the wavelength of visible light ranges from 400 nm to 700 nm.

n = 4	—————	-0.85 eV
n = 3	—————	-1.53 eV
n = 2	—————	- 3.40 eV
n = 1	—————	-13.6 eV

If electrons having kinetic energy of 12.5 eV are used to bombard cool hydrogen gas, how many spectral lines in the visible region can be obtained subsequently?

**A** 0

**B** 1

**C** 2

**D** 3