



# ACT: Spectral Line Wavelengths

Compare the wavelength of a photon produced from a transition from  $n=3$  to  $n=2$  with that of a photon produced from a transition  $n=2$  to  $n=1$ .

(1)  $\lambda_{32} < \lambda_{21}$

(2)  $\lambda_{32} = \lambda_{21}$

(3)  $\lambda_{32} > \lambda_{21}$

\_\_\_\_\_  $n=3$

\_\_\_\_\_  $n=2$

\_\_\_\_\_  $n=1$