

**28** Transitions between three energy levels in a particular atom give rise to three spectra lines of wavelengths in decreasing magnitudes,  $\lambda_1$ ,  $\lambda_2$  and  $\lambda_3$ .

Which one of the following equations correctly relates  $\lambda_1$ ,  $\lambda_2$  and  $\lambda_3$ ?

**A**  $\frac{1}{\lambda_3} = \frac{1}{\lambda_2} - \frac{1}{\lambda_1}$

**B**  $\frac{1}{\lambda_3} = \frac{1}{\lambda_2} + \frac{1}{\lambda_1}$

**C**  $\frac{1}{\lambda_3} = \frac{1}{\lambda_1} - \frac{1}{\lambda_2}$

**D**  $\lambda_1 = \lambda_2 + \lambda_3$