

9. From Eq. 40-4

$$E_{n+2} - E_n = \left(\frac{h^2}{8mL^2} \right) (n+2)^2 - \left(\frac{h^2}{8mL^2} \right) n^2 = \left(\frac{h^2}{2mL^2} \right) (n+1) .$$