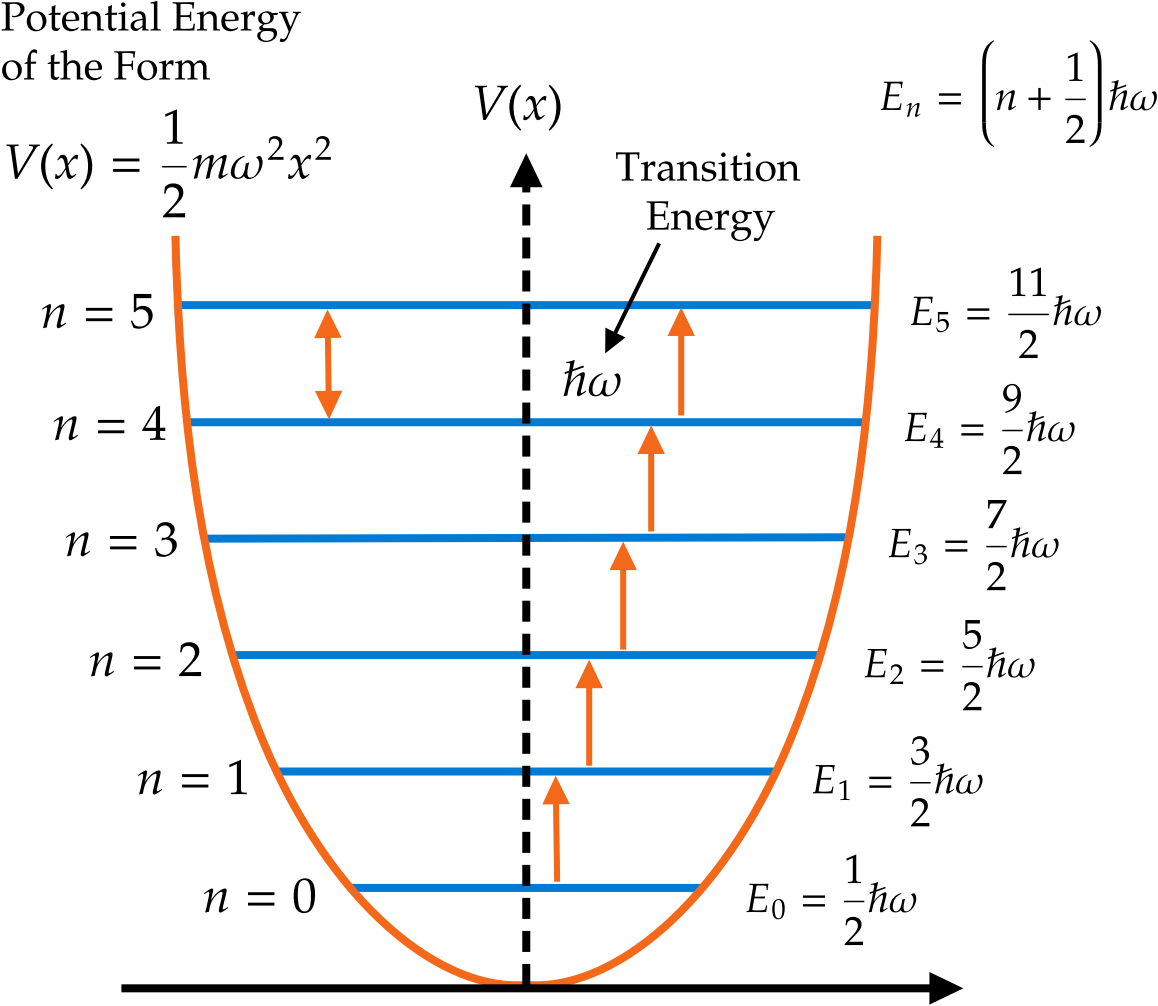
Potential Energy
of the Form
$V(x) = \frac{1}{2}m\omega^2 x^2$
$V(x)$
$E_n = \left(n + \frac{1}{2}\right)\hbar\omega$
Transition
Energy
$\hbar\omega$
$n = 5$
$E_5 = \frac{11}{2}\hbar\omega$
$n = 4$
$E_4 = \frac{9}{2}\hbar\omega$
$n = 3$
$E_3 = \frac{7}{2}\hbar\omega$
$n = 2$
$E_2 = \frac{5}{2}\hbar\omega$
$n = 1$
$E_1 = \frac{3}{2}\hbar\omega$
$n = 0$
$E_0 = \frac{1}{2}\hbar\omega$