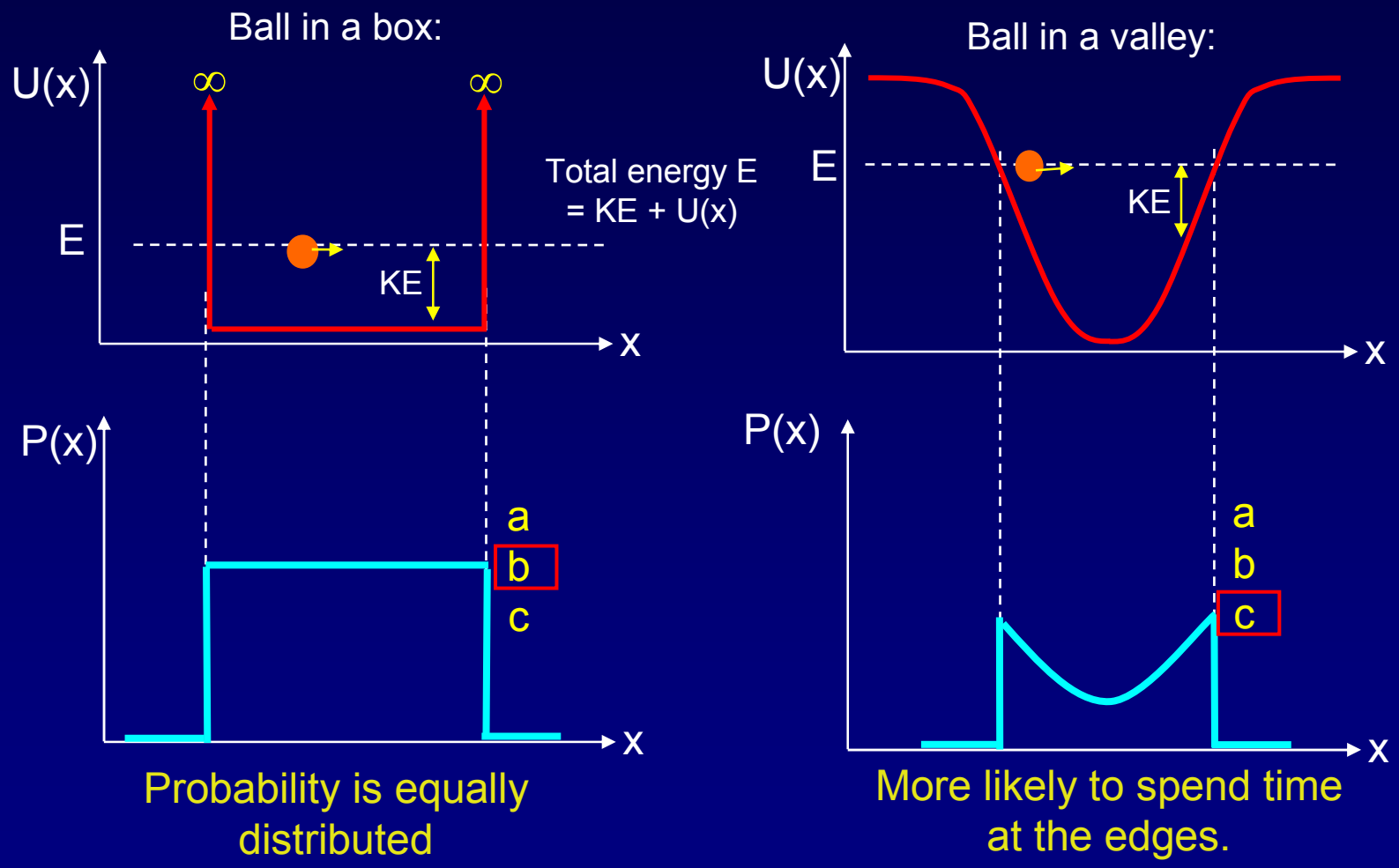
Solution

Start a classical (large) object moving in a potential well (two are shown here).
At some random time later, what is the probability of finding it near position x?



To predict a quantum particle's behavior, we need an equation that tells us how the particle's wave function, $\Psi(x,y,z,t)$, changes in space and time.