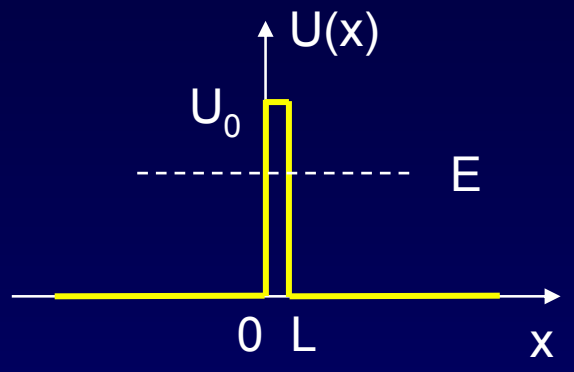
Solution

Consider a particle tunneling through a barrier.

1. Which of the following will increase the likelihood of tunneling?



a. decrease the height of the barrier

b. decrease the width of the barrier

c. decrease the mass of the particle

$T \approx e^{-2KL}$ Decreasing U_0 or m_e will decrease K.

2. What is the energy of the emerging particles?

a. < initial energy **b. = initial energy** c. > initial energy

The barrier does not absorb energy from the particle. The amplitude of the outgoing wave is smaller, but the wavelength is the same. E is the same everywhere.

Probability ≠ Energy