

Act 3

1. Which has more bound states?

- a. particle in a finite well
- b. particle in an infinite well
- c. both have the same number of bound states.

2. For a particle in a finite square well, which of the following will decrease the number of bound states?

- a. decrease well depth U_0
- b. decrease well width L
- c. decrease m , mass of particle

3. Compare the energy $E_{1,\text{finite}}$ of the lowest state of a finite well with the energy $E_{1,\text{infinite}}$ of the lowest state of an infinite well of the same width L .

a. $E_{1,\text{finite}} < E_{1,\text{infinite}}$

b. $E_{1,\text{finite}} > E_{1,\text{infinite}}$

c. $E_{1,\text{finite}} = E_{1,\text{infinite}}$