

Schrödinger Program Pre-Assignment Survey

Please answer the following questions pertaining to the Schrödinger program assignment.

1. Do you have experience in computer programming / scripting?
A. Yes B. No
2. Have you had a course in numerical methods / analysis?
A. Yes B. No
3. Do you have experience using a computer to solve numerical problems in physics, biology or chemistry?
A. Yes B. No
4. What is your level of computer skill?
A. Poor B. Below average C. Average D. Above Average E. Strong
5. The energy levels of a 1-dimensional particle in a box decrease as the length of the box increases.
A. True B. False
6. The spacing between wavefunctions increases with increasing energy for the 1-dimensional particle in a box.
A. True B. False
7. The number of nodes in a 1-dimensional particle in a box is equal to (n-2).
A. True B. False
8. For a particle in a finite potential energy well, the particle is permitted to exist outside of the well.
A. True B. False
9. For a particle in a finite potential energywell, the amount of tunneling decreases for particles with higher energy.
A. True B. False
10. The energy of a particle in an infinite potential energy well is
$$\frac{n^2 h^2}{8mL}$$

A. True B. False