

## Task 22-01

- A particle is described by the wave function
- Given the normalization requirement:
- Find the constant where

## Task 22-01 (Cont.)

- Create a new Jupyter Lab Notebook called **particle\_location.ipynb**
- In Cell 1, use matplotlib and Monte Carlo estimation to draw the PDF and to estimate the probability a particle will be found in the region . Display the % relative error in your estimate compared to the analytic solution
- In Cell 2, use SciPy Integrate to numerically estimate the same probability as Cell 1
- Upload your solution to the BNL QIS101 SharePoint site