Lab Assignment (Numerical Integration)

1. Make a subroutine or function to calculate an integral numerically based on the trapezoidal rule
   - Take a function with an interval as an input
   - Specify a partition number as an input
   - Compute the trapezoidal approximation for $\int_0^2 \sqrt{x}dx$ using several partition numbers (10,100,1000).
2. Make a subroutine or function to calculate an integral numerically based on the Simpson's rule.
   - Take a function with an interval as an input
   - Specify a partition number as an input
   - Use the Simpson's rule to approximate $\int_0^2 \sqrt{x}dx$ using several partition numbers (10,100,1000).

Make sure that you include comments in your code for making others understand yours clearly.
Your tests for several partition numbers should be recorded in your last comments.
During the feedback, everybody could compare the test results with others.