Submit your solutions to the following problems in lecture on the due date above. Present your work in a clean and organized fashion, either on a printed copy of this document (preferred) or a separate sheet of paper. As stated in the syllabus, late submissions will not be accepted.

1. Evaluate the following integrals.
   
   (a) \( \int_0^\pi 21 \sin(7x) \, dx \)
   
   (b) \( \int_{\ln(\pi/2)}^{\ln(\pi)} e^x \cos(e^x) \, dx \)

2. Consider the following integral.
   
   \( \int_0^\pi \sin(x) \, dx \)
   
   (a) Approximate the above integral using a midpoint sum with \( n = 3 \) subdivisions.

   (b) Compare each of your estimates to the exact area under the curve.