Math 16B: Short Calculus II
Spring 2017, Section 1
Homework Sheet 4
Due: Monday, May 1, 2017

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) $\displaystyle\int_0^{\pi} 21\sin(7x)\ dx$

   (b) $\displaystyle\int_{\ln(\pi/2)}^{\ln(\pi)} e^x\cos(e^x)\ dx$

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.