Math 16B: Short Calculus II
Spring 2017, Section 1
Homework Sheet 5
Due: Friday, May 12, 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 using U-substitution.

   (a) $\displaystyle\int \cos(x)e^{\sin(x)}\ dx$

   (b) $\displaystyle\int x^2 \sin(x^3 + 3)\ dx$

   (c) $\displaystyle\int \frac{x^2 + 3}{\sqrt[3]{x^3 + 9x}}\ dx$

   (d) $\displaystyle\int_{\pi/4}^{\pi/2} \cot(x)\ dx$