Math 16A: Short Calculus I
Fall 2017, Section 3
Homework Sheet 5
Due: Monday, October 30, 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. Use special triangles to evaluate the following expressions. For each, draw the corresponding special triangle and label all side lengths and angles.

   $\sin(\frac{\pi}{6})$ $\tan(\frac{\pi}{4})$

2. Compute the following derivative using *only* the derivatives of $\sin(x)$ and $\cos(x)$.

   $\frac{d}{dx}\cot(x)$

3. Compute the following derivatives.

   (a) $\frac{d}{dx}\sin(x^2+1)$

   (b) $\frac{d}{dx}\tan(\sec(x))$