Problem Set 1   **Calculus 1**   **Due 10/17/18**

You are encouraged to work in groups of two to four on this assignment and make a single group submission. 3 points per problem, plus 1 bonus point for a submission suitable for college work.

1. Show that the derivative of $f(x) = \sec x$ is $\sec x \tan x$.

2. Show that the derivative of $g(x) = \cot x$ is $-\csc^2 x$.

3. Show that the derivative of $h(x) = \csc x$ is $-\csc x \cot x$.