MAE 478, Spring 2017

**Homework Assignment #3**

**Due Date: April 4, 2017**

1. (10) A double wedge airfoil has a chord length of 12 inches, a wedge angle of 0.1 radians, and an angle of attack of 0.2 radians. Its Mach number is 2. What is its moment coefficient? What is the location of its center of pressure (compared to its center of gravity)?

2. (10) A rectangular planform, symmetric double-wedge wing moves through air at 30,000 ft at M∞=2. The wedge half angle is 10°. The angle of attack is 4°. The wingspan is 12 inches and the chord is 18 inches. Assuming viscous, compressible flow, what are the normal force and the drag on the wing?