

**16.120 Compressible Flow****Problem Set # 4****Assigned: April 10, 2003****Due: April 15, 2003**

Demonstrate that for a weak normal shock the leading term defining the entropy rise across this shock is:

$$\Delta s = \frac{1}{3!} \left( \frac{d^3 s}{dv^3} \right)_1 (v - v_1)^3 + \dots$$

What is the next non-zero term?