

## AE 3450 Thermodynamics and Compressible Flow

### Sample Problems

(Phases, Equilibrium Properties, Work, Heat & 1<sup>st</sup> Law of Thermodynamics)

From the Black and Hartley textbook:

1.16

1.26

1.28

2.21 (parts a-d only)

2.34

2.85 (use  $T_2 = 540^\circ F$  instead of  $T_2 = 540^\circ C$ )

2.112

2.122

4.26

4.112 (Assume inflow kinetic energy is much smaller than exit kinetic energy)

4.122