VM433 FA2016 Project 2 Part A1 Sample Answer

Insturctions:

1. Finish writing the following functions: findEnthalpyDiff, findEntropyDiff, findFinalTempFromEnthalpyDiff and findFinalTempFromEntropyDiff

2. Do NOT change anything in “Find_Ideal_Gas_Properties” and “Ideal_Gas_Properties”.

3. Without changing anything, run “P2_A1_main.m”.

4. You should be able to see the following answers in the command window:

```
Ideal gas N2 property calculations:
    1.  Given:   State 1: 300.00 K and 100.00 kPa, State 2: 400.00 K and 200.00 kPa.
        (a)  enthalpy difference     =   104.31      kJ/kg          ANSWER
             enthalpy difference     =   2922.11     kJ/kmol        ANSWER
        (b)  entropy difference      =   0.09        kJ/(kg*K)      ANSWER
             entropy difference      =   2.64        kJ/(kmol*K)    ANSWER

    2.  Given:   initial temperature = 300.00 K, enthalpy difference = 100.00 kJ/kg.
        We find: final temperature = 395.89 K   ANSWER

    3.  Given:   initial temperature = 300.00 K, initial pressure = 100.00 kPa,
                 final pressure = 200.00 kPa, enthalpy difference = 0.10 kJ/(kg*K).
        We find: final temperature = 402.18 K   ANSWER
```