Project Assignment 0:

SOFTWARE INSTALLATION

1. Python Version : 3.11.5
2. Plot of sin wave :

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|  |
| Fig1. Sin Wave |

1. Cantera Version :
2. Equilibrium Temperature of methane-air mixture specified is 2287K .
3. Error to correct in code :

**NameError** Traceback (most recent call last)

[**d:\Fall**](file:///D:\Fall) **2023\Mech 652 Dynamics of combustion\P1 - Combustion thermodynamics attached files Sep 13, 2023 1225 PM\P\_0.ipynb Cell 2** line 4

[2](vscode-notebook-cell://d%3A/Fall%202023/Mech%20652%20Dynamics%20of%20combustion/P1%20-%20Combustion%20thermodynamics%20attached%20files%20Sep%2013%2C%202023%201225%20PM/P_0.ipynb#W1sZmlsZQ%3D%3D?line=1) y1 = np.sin(x)

[3](vscode-notebook-cell://d%3A/Fall%202023/Mech%20652%20Dynamics%20of%20combustion/P1%20-%20Combustion%20thermodynamics%20attached%20files%20Sep%2013%2C%202023%201225%20PM/P_0.ipynb#W1sZmlsZQ%3D%3D?line=2) y2 = np.cos(x)

**---->** [**4**](vscode-notebook-cell://d%3A/Fall%202023/Mech%20652%20Dynamics%20of%20combustion/P1%20-%20Combustion%20thermodynamics%20attached%20files%20Sep%2013%2C%202023%201225%20PM/P_0.ipynb#W1sZmlsZQ%3D%3D?line=3) plt.plot (x,y1,color= red,label="sin")

[5](vscode-notebook-cell://d%3A/Fall%202023/Mech%20652%20Dynamics%20of%20combustion/P1%20-%20Combustion%20thermodynamics%20attached%20files%20Sep%2013%2C%202023%201225%20PM/P_0.ipynb#W1sZmlsZQ%3D%3D?line=4) #plt.plot (x,y2,color= 'blue',label="cos")

[6](vscode-notebook-cell://d%3A/Fall%202023/Mech%20652%20Dynamics%20of%20combustion/P1%20-%20Combustion%20thermodynamics%20attached%20files%20Sep%2013%2C%202023%201225%20PM/P_0.ipynb#W1sZmlsZQ%3D%3D?line=5) plt.legend()

**NameError**: name 'red' is not defined

1. Plot of Sin and Cosine

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| --- |
| A graph of a function  Description automatically generated |
| Fig2. Sin & Cosine Wave |

1. Command to know possible functions : dir (my\_function)