```
import matplotlib.pyplot as plt

# Example x and y paired values

x1 = [4, 5, 6, 7, 8, 10, 15, 20]
y1 = [1.8871e-05, 5.9765e-05, 7.507e-05, 0.000387802, 0.000523492, 0.00291211,0.163066, 3.76074

x2 = [4, 5, 6, 7, 8, 10, 15, 20, 32]
y2 = [1.5367e-05, 3.0211e-05, 2.1308e-05, 5.5658e-05, 3.7815e-05 , 8.0416e-05,0.000237178, 0.00

# Create line plots for both sets of data
plt.plot(x1, y1, label='Exhaustive Optimization')
plt.plot(x2, y2, label='Dynamic Programming')

# Add labels and title
plt.xlabel('input size')
plt.ylabel('time')
plt.title('Exhaustive Optimization vs Dynamic Programming')

# Add a legend
plt.legend()

# Display the plot
plt.show()
```