appendix

December 23, 2023

[ ]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

[ ]:
```
df = pd.read_csv('data.csv')
df
```

[ ]:
```
fig, axes = plt.subplots(nrows=3, ncols=2)
df.plot(x='t', y='1', ax=axes[0, 0])
df.plot(x='t', y='2', ax=axes[0, 1])
df.plot(x='t', y='3', ax=axes[1, 0])
df.plot(x='t', y='4', ax=axes[1, 1])
df.plot(x='t', y='5', ax=axes[2, 0])
df.plot(x='t', y='6', ax=axes[2, 1])
plt.show()
```

[ ]:
```
plt.figure()
plt.plot(df['t'], df['1'], label='1')
plt.plot(df['t'], df['2'], label='2')
plt.plot(df['t'], df['3'], label='3')
plt.plot(df['t'], df['4'], label='4')
plt.plot(df['t'], df['5'], label='5')
plt.plot(df['t'], df['6'], label='6')
plt.xlabel('t / min')
plt.ylabel('T / ℃')
plt.legend()
plt.show()
```

[ ]:
```
plt.figure()
plt.plot(df['t'], df['1'], label='1')
plt.plot(df['t'] + 50, df['2'], label='2')
plt.plot(df['t'] + 100, df['3'], label='3')
plt.plot(df['t'] + 150, df['4'], label='4')
plt.plot(df['t'] + 200, df['5'], label='5')
plt.plot(df['t'] + 250, df['6'], label='6')
plt.xlabel('t / min')
plt.ylabel('T / ℃')
plt.legend()
```

```
plt.show()
```