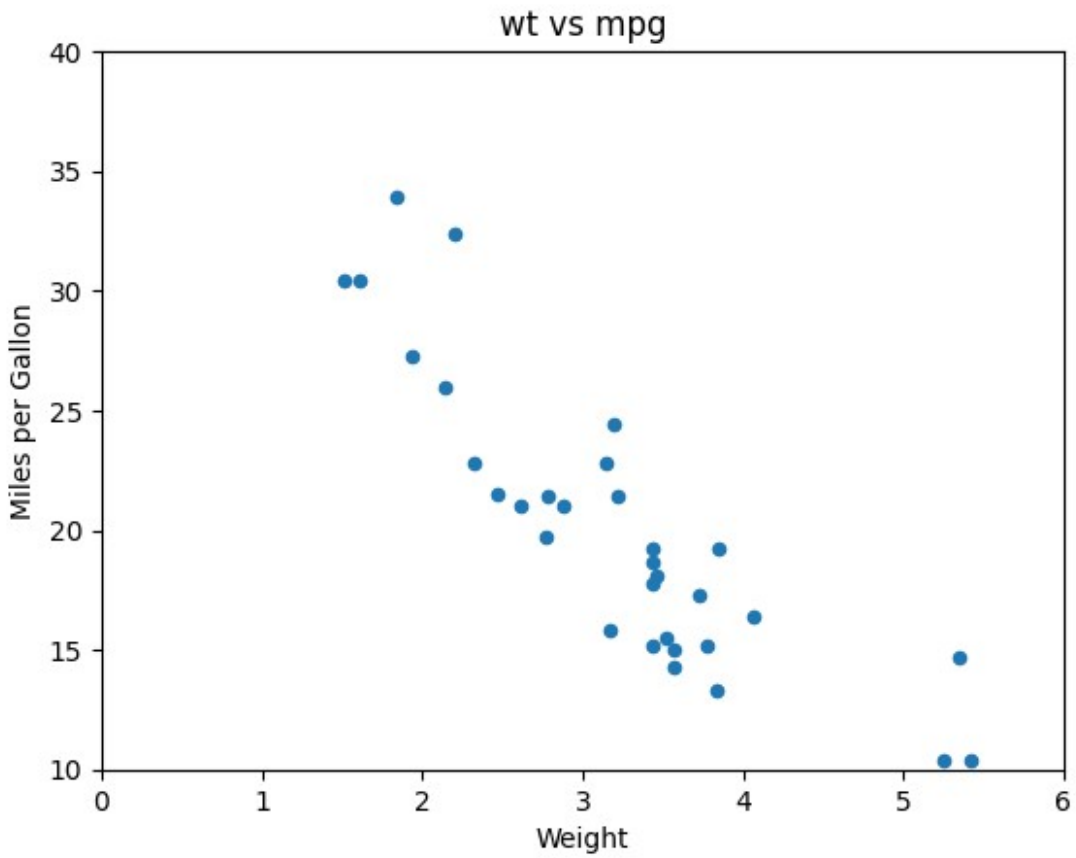
```
%pip install seaborn
%pip install openpyxl
```

a)

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

txt_file = pd.read_csv('mtcars.txt', sep='\t')
xlsx_file = pd.read_excel('mtcars.xlsx')

if not txt_file.equals(xlsx_file):
    print("Files not equal!")

cars = txt_file
```

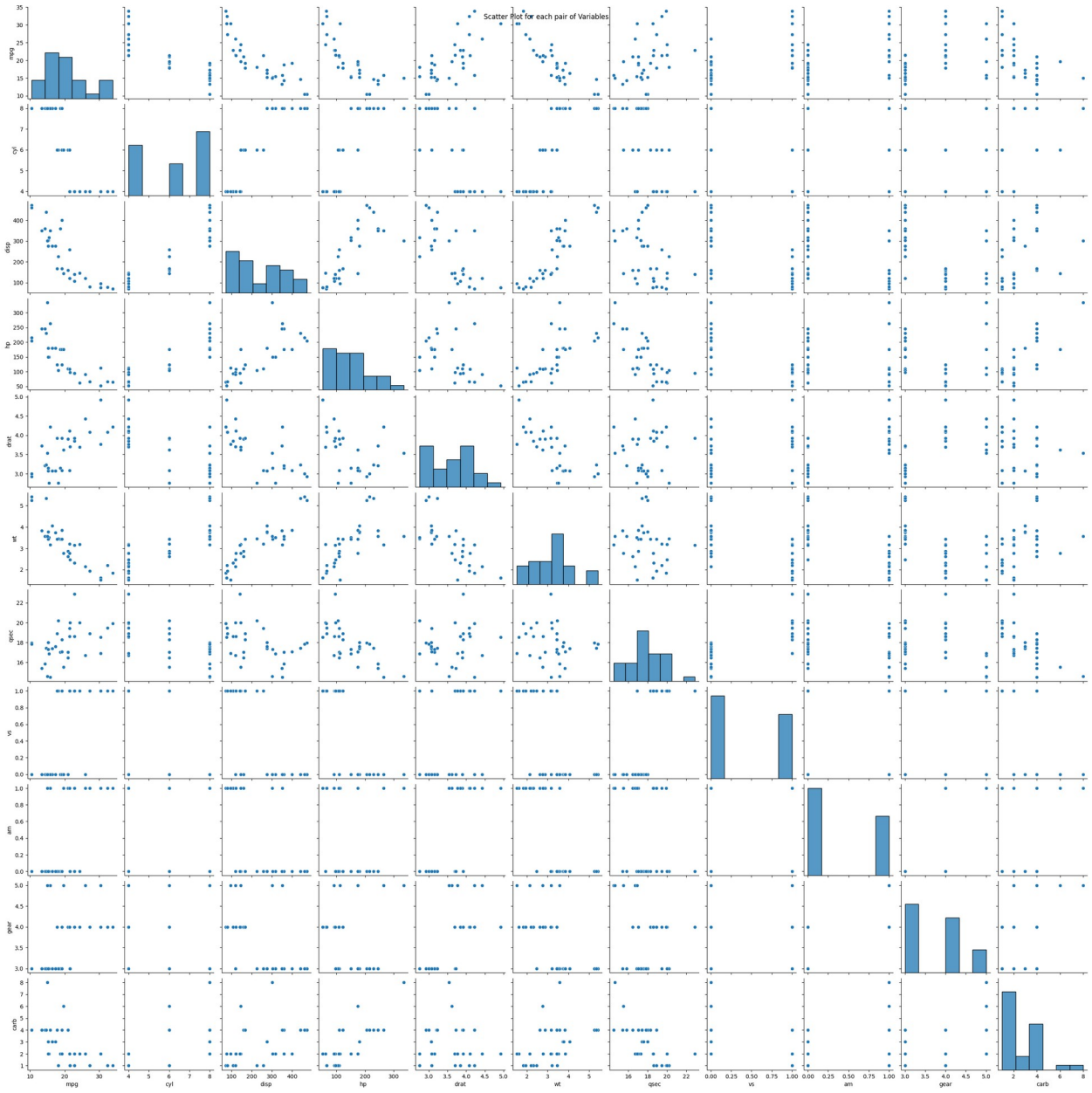
b)

```
cars.plot.scatter(x='wt', y='mpg')
plt.xlim(0, 6)
plt.ylim(10, 40)
plt.title('wt vs mpg')
plt.xlabel('Weight')
plt.ylabel('Miles per Gallon')
plt.show()
```



c)

```
sns.pairplot(cars)
plt.suptitle('Scatter Plot for each pair of Variables')
plt.show()
```

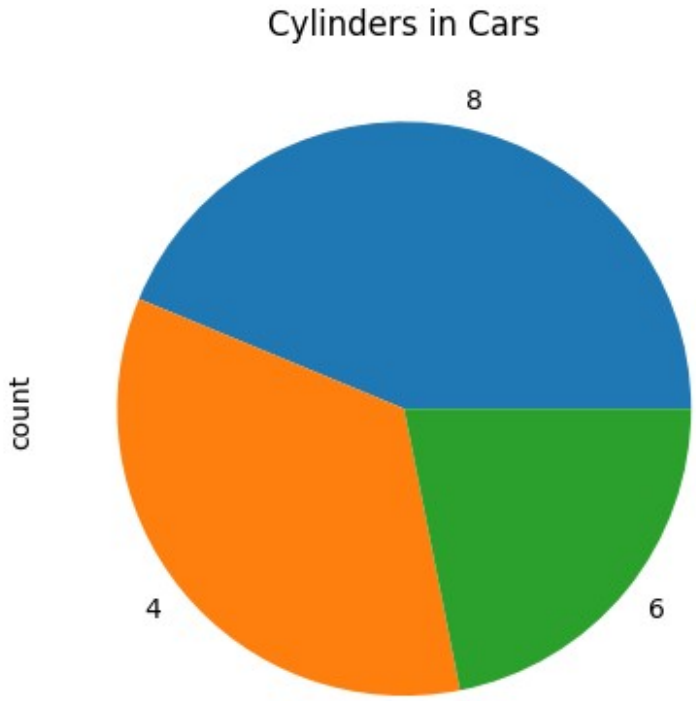


d) cars['cyl'].value counts() returns the # of times each unique value occurs in the 'cyl' column

```
cyl_vals = cars['cyl'].value_counts()
print(cyl_vals)
```

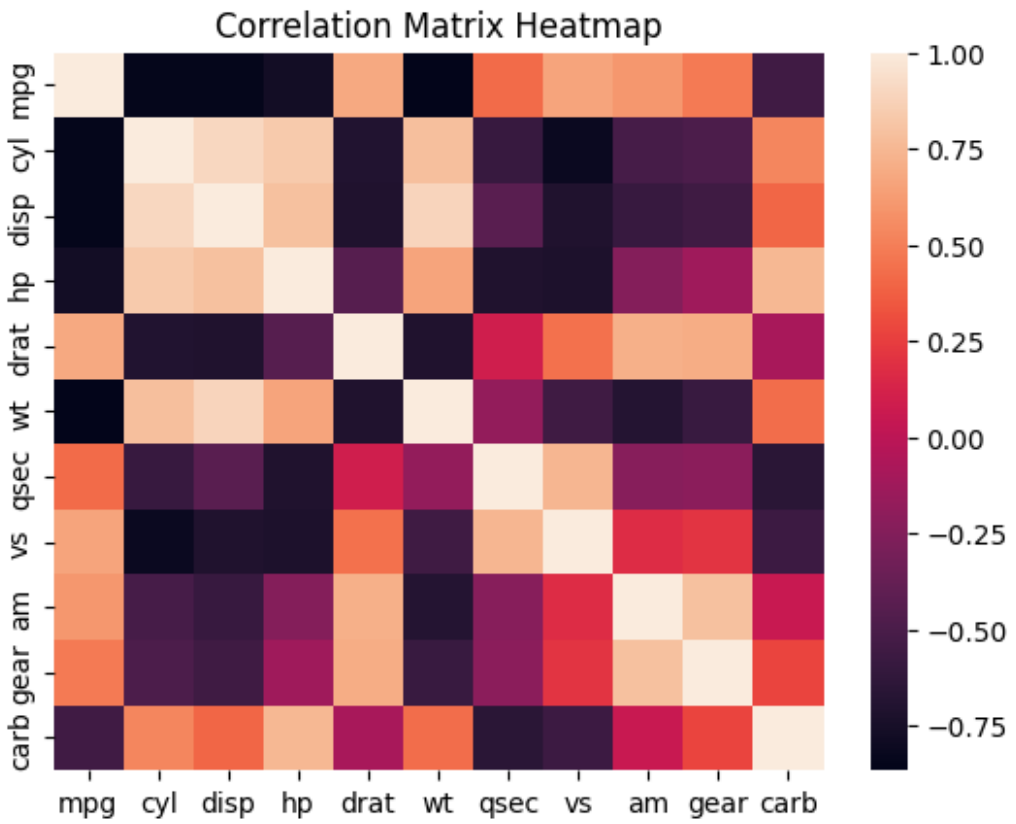
```
cyl
8    14
4    11
6     7
Name: count, dtype: int64
```

```
cyl_vals.plot(kind='pie')
plt.title('Cylinders in Cars')
plt.show()
```



e)

```
corr_mat = cars.corr(numeric_only=True)
sns.heatmap(corr_mat)
plt.title('Correlation Matrix Heatmap')
plt.show()
```


Correlation Matrix Heatmap
mpg
cyl
disp
hp
drat
wt
qsec
vs
am
gear
carb
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75