

-----import libraries-----

```
import pandas as pd
import numpy as np
from scipy import stats
from scipy.stats import norm
```

-----read dataset-----

```
data = pd.read_csv('Downloads/LabTAT.csv')
data
```

	Laboratory 1	Laboratory 2	Laboratory 3	Laboratory 4
0	185.35	165.53	176.70	166.13
1	170.49	185.91	198.45	160.79
2	192.77	194.92	201.23	185.18
3	177.33	183.00	199.61	176.42
4	193.41	169.57	204.63	152.60
...
115	178.49	170.66	193.80	172.68
116	176.08	183.98	215.25	177.64
117	202.48	174.54	203.99	170.27
118	182.40	197.18	194.52	150.87
119	182.09	215.17	221.49	162.21

120 rows × 4 columns

-----pvalue-----

```
pvalue = stats.f_oneway(data.iloc[:,0],data.iloc[:,1],data.iloc[:,2],data.iloc[:,3])
pvalue
```

```
F_onewayResult(statistic=118.70421654401437, pvalue=2.1156708949992414e-57)
```
