```
import pandas as pd
df = pd.read_csv("/content/drive/MyDrive/Colab Notebooks/poly_fit.csv")
print(df)
```

```
x = df.iloc[:,0]
y = df.iloc[:,1]
```

```
import numpy as np
```

```
import scipy.optimize as opt
def func(t,a,b):
  return a*t**5+b*t**4
opt.curve_fit(func,  x,  y,  p0=(4, 0.1))
```

```
        (array([-1.29514705e-05,  3.90695816e-04]),
         array([[ 6.75962127e-12, -1.07920699e-10],
                [-1.07920699e-10,  1.74029653e-09]]))
```

```
import matplotlib.pyplot as plt
lst=[]
for i in x:
  print(i)
  y1=-1.29514705e-05*i**5 + 3.90695816e-04*i**4
  lst.append(y1)
plt.plot(x,lst,'b-' , label="fitted circle")
plt.scatter(x,y,c='red', label='data')
plt.legend(loc='best', labelspacing=0.1 )
plt.grid()
plt.title('Fit Exponential')
```

```
       1.0
       1.5
       2.0
       2.5
       3.0
       3.5
       4.0
       4.5
       5.0
       5.5
       6.0
       6.5
       7.0
       7.5
```

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```
9.0
9.5
10.0
10.5
11.0
11.5
12.0
12.5
13.0
13.5
14.0
14.5
15.0
15.5
16.0
16.5
17.0
17.5
Text(0.5, 1.0, 'Fit Exponential')
```