

```
In [5]: import pandas as pd
        from scipy import stats
```

```
In [4]: data1 = pd.read_csv('Cars (2).csv', sep=',')
        data1.head()
```

```
Out[4]:
```

	HP	MPG	VOL	SP	WT
0	49	53.700681	89	104.185353	28.762059
1	55	50.013401	92	105.461264	30.466833
2	55	50.013401	92	105.461264	30.193597
3	70	45.696322	92	113.461264	30.632114
4	53	50.504232	92	104.461264	29.889149

1. P(MPG > 38)

```
In [7]: y = data1['MPG'].mean()
        y
```

```
Out[7]: 34.422075728024666
```

```
In [9]: z = data1['MPG'].std()
        z
```

```
Out[9]: 9.131444731795982
```

```
In [11]: 1 - stats.norm.cdf(x=38, loc=34, scale=9)
```

```
Out[11]: 0.3283606432818853
```

2. P(MPG < 40)

```
In [13]: stats.norm.cdf(x=40, loc=34, scale=9)
```

```
Out[13]: 0.7475074624530771
```

3. P (20 < MPG < 50)

```
In [14]: stats.norm.cdf(x=50, loc=34, scale=9) - stats.norm.cdf(x=20, loc=34, scale=9)
```

```
Out[14]: 0.9023729130838278
```