Gaussian Distribution

In [1]:
```
import random
import matplotlib.pyplot as plt
import numpy as np
import seaborn as sns
```

In [25]:
```
def normal_dist(x , mean , sd):
    prob_density = (1/(np.sqrt(2*np.pi)*sd)) * np.exp(-0.5*((x-mean)/sd)**2)
    return prob_density
```

In [32]:
```
x = np.linspace(1,100,1000)
mean = np.mean(x)
sd = np.std(x)
```

In [33]:
```
pdf = normal_dist(x,mean,sd)
```

In [34]:
```
plt.style.use('seaborn')
plt.plot(x,pdf , color = 'red')
plt.xlabel('Data points')
plt.ylabel('Probability Density')
plt.show()
```