In [1]:
```python
import numpy as np
```

In [2]:
```python
# You survey households in your area to find the average rent they are paying. Fin
```

In [3]:
```python
x = [1550,1550,1700,1700,900,900,850,850,1000,1000,950]
Avg_rent_paid = np.mean(x)
std_dev = np.std(x)

print('Average rent paid by the households for the sample information collected :
print('The limits of data perating to rent paid by the households is +/- : {:0.2f}
```

Average rent paid by the households for the sample information collected : 117
7.27
The limits of data perating to rent paid by the households is +/- : 344.68

In [4]:
```python
# Find the variance for the following set of data representing trees in California
```

In [5]:
```python
#x : height of trees in feet

x = [3,21,98,203,17,9]
variance = np.var(x)

print("The spread of data representing trees in california(heights in feet): {:0.2
```

The spread of data representing trees in california(heights in feet): 5183.25

In [6]:
```python
# In a class on 100 students, 80 students passed in all subjects, 10 failed in one
```

```python
import matplotlib.pyplot as plt
%matplotlib inline
n_students = 100
passed_all = 80
failed_one = 10
failed_two = 7
failed_three = 3

num_students_not_passed_all = n_students - passed_all
prob_failed_none = passed_all / n_students
prob_failed_in_one = failed_one / n_students
prob_failed_in_two = failed_two / n_students
prob_failed_in_three = failed_three / n_students

print("Probability failed in no subjects : ", prob_failed_none)
print("Probability failed in one subjects : ", prob_failed_in_one)
print("Probability failed in two subjects :  ", prob_failed_in_two)
print("Probability failed in three subjects : ", prob_failed_in_three)
```

```
Probability failed in no subjects :  0.8
Probability failed in one subjects :  0.1
Probability failed in two subjects :   0.07
Probability failed in three subjects :  0.03
```

In [ ]:

In [ ]:

In [ ]: