

Assignment 1

Find mean, median, mode, range, standard deviation, variance, median low and median high of given lists.

✓
0s

```
[4] import statistics as s
    from statistics import Fraction as fr
    from statistics import stdev
    import numpy as np
```

✓
0s

```
# mean, median, mode, range, stdev, variance , median low, median high

li1=[4,9,11,12,17,5,8,12,14]
li2=[51,38,79,46,57]
li3=[0.16,1.96,0.36,0.16,2.56]
li4=[85,86,100,76,81,93,84,99,71,69,93,85,81,87,89]
li5=[0.6,-1.4,1.6,-0.4,0.16,0.36,1.96,0.36]
li6=[3.9,-5.1,8.9,4.9,-0.1,-4.1,-8.1]
li7=[fr(2,7),fr(3,10),fr(1,5),fr(1,3),fr(4,5),fr(7,9)]
```

✓
0s

```
[9] print("List:", li1)
    print('Mean of the list:', s.mean(li1))
    print('Median of the list:', s.median(li1))
    print('Median low of the list:', s.median_low(li1))
    print('Median high of the list:', s.median_high(li1))
    print('Mode of the list:', s.mode(li1))
    print('Range of the list:', max(li1)-min(li1))
    print('Variance of the list:', s.variance(li1))
    print('Standard deviation of list:', s.stdev(li1))
```

```
List: [4, 9, 11, 12, 17, 5, 8, 12, 14]
Mean of the list: 10.222222222222221
Median of the list: 11
Median low of the list: 11
Median high of the list: 11
Mode of the list: 12
Range of the list: 13
Variance of the list: 17.444444444444443
Standard deviation of list: 4.176654695380556
```

```
✓ [10] print("List:", li2)
0s      print('Mean of the list:', s.mean(li2))
      print('Median of the list:', s.median(li2))
      print('Median low of the list:', s.median_low(li2))
      print('Median high of the list:', s.median_high(li2))
      print('Mode of the list:', s.mode(li2))
      print('Range of the list:', max(li2)-min(li2))
      print('Variance of the list:', s.variance(li2))
      print('Standard deviation of list:', s.stdev(li2))
```

```
List: [51, 38, 79, 46, 57]
Mean of the list: 54.2
Median of the list: 51
Median low of the list: 51
Median high of the list: 51
Mode of the list: 51
Range of the list: 41
Variance of the list: 240.70000000000002
Standard deviation of list: 15.514509338035799
```

```
✓ [11] print("List:", li3)
0s      print('Mean of the list:', s.mean(li3))
      print('Median of the list:', s.median(li3))
      print('Median low of the list:', s.median_low(li3))
      print('Median high of the list:', s.median_high(li3))
      print('Mode of the list:', s.mode(li3))
      print('Range of the list:', max(li3)-min(li3))
      print('Variance of the list:', s.variance(li3))
      print('Standard deviation of list:', s.stdev(li3))
```

```
List: [0.16, 1.96, 0.36, 0.16, 2.56]
Mean of the list: 1.04
Median of the list: 0.36
Median low of the list: 0.36
Median high of the list: 0.36
Mode of the list: 0.16
Range of the list: 2.4
Variance of the list: 1.292
Standard deviation of list: 1.1366617790706257
```


0s

```
[12] print("List:", li4)
      print('Mean of the list:', s.mean(li4))
      print('Median of the list:', s.median(li4))
      print('Median low of the list:', s.median_low(li4))
      print('Median high of the list:', s.median_high(li4))
      print('Mode of the list:', s.mode(li4))
      print('Range of the list:', max(li4)-min(li4))
      print('Variance of the list:', s.variance(li4))
      print('Standard deviation of list:', s.stdev(li4))
```

```
List: [85, 86, 100, 76, 81, 93, 84, 99, 71, 69, 93, 85, 81, 87, 89]
Mean of the list: 85.26666666666667
Median of the list: 85
Median low of the list: 85
Median high of the list: 85
Mode of the list: 85
Range of the list: 31
Variance of the list: 81.06666666666666
Standard deviation of list: 9.003702941938204
```


0s

```
[13] print("List:", li5)
      print('Mean of the list:', s.mean(li5))
      print('Median of the list:', s.median(li5))
      print('Median low of the list:', s.median_low(li5))
      print('Median high of the list:', s.median_high(li5))
      print('Mode of the list:', s.mode(li5))
      print('Range of the list:', max(li5)-min(li5))
      print('Variance of the list:', s.variance(li5))
      print('Standard deviation of list:', s.stdev(li5))
```

```
List: [0.6, -1.4, 1.6, -0.4, 0.16, 0.36, 1.96, 0.36]
Mean of the list: 0.405
Median of the list: 0.36
Median low of the list: 0.36
Median high of the list: 0.36
Mode of the list: 0.36
Range of the list: 3.36
Variance of the list: 1.1220285714285714
Standard deviation of list: 1.0592585007582291
```

```
✓ [14] print("List:", li6)
0s      print('Mean of the list:', s.mean(li6))
      print('Median of the list:', s.median(li6))
      print('Median low of the list:', s.median_low(li6))
      print('Median high of the list:', s.median_high(li6))
      print('Mode of the list:', s.mode(li6))
      print('Range of the list:', max(li6)-min(li6))
      print('Variance of the list:', s.variance(li6))
      print('Standard deviation of list:', s.stdev(li6))
```

```
List: [3.9, -5.1, 8.9, 4.9, -0.1, -4.1, -8.1]
Mean of the list: 0.0428571428571431
Median of the list: -0.1
Median low of the list: -0.1
Median high of the list: -0.1
Mode of the list: 3.9
Range of the list: 17.0
Variance of the list: 37.80952380952381
Standard deviation of list: 6.148944934663492
```

```
✓ [15] print("List:", li7)
0s      print('Mean of the list:', s.mean(li7))
      print('Median of the list:', s.median(li7))
      print('Median low of the list:', s.median_low(li7))
      print('Median high of the list:', s.median_high(li7))
      print('Mode of the list:', s.mode(li7))
      print('Range of the list:', max(li7)-min(li7))
      print('Variance of the list:', s.variance(li7))
      print('Standard deviation of list:', s.stdev(li7))
```

```
List: [Fraction(2, 7), Fraction(3, 10), Fraction(1, 5), Fraction(1, 3), Fraction(4, 5), Fraction(7, 9)]
Mean of the list: 1699/3780
Median of the list: 19/60
Median low of the list: 3/10
Median high of the list: 1/3
Mode of the list: 2/7
Range of the list: 3/5
Variance of the list: 846677/11907000
Standard deviation of list: 0.26665989535368734
```