1) a) $\mu = \frac{9+7+11+13+2+4+5+5}{8} = \frac{56}{8} = 7$

b) $\mu = \frac{2.2 + 10.2 + 14.2 + 5.9 + 4.9 + 11.1 + 10.5}{7}$

$= \frac{59.5}{7} = 8.5$

c) $\mu = \frac{\frac{5}{4} + \frac{5}{2} + \frac{11}{2} + \frac{13}{4} + \frac{5}{2}}{5}$

$= \frac{5+10+22+13+10}{\frac{4}{5}} = \frac{60}{20} = 3$

---

2) $n = 10$

$fib = [0] * (n+1)$

$fib[1] = 1$

$Sum = fib[0] + fib[1]$

for i in range (2, 10):

$fib[i] = fib[i-1] + fib[i-2]$

$sum = sum + fib[i]$

print (sum) → 88

3) 5 prime nos.

$$\mu = \frac{2+3+5+7+11}{5} = \frac{28}{5} \quad 5.6$$

Median $= 5$

---

4) $\mu = \frac{\Sigma x}{n} \Rightarrow 66 = \frac{8+11+6+14+x+13}{6}$

$396 - 52 = x$

$x = 344 \rightarrow$ outlier

---

5) $9 = \frac{6+8+x+2+10+2x-1+2}{6}$

$54 = 27 + 3x$

$\frac{27}{3} = x \Rightarrow x = 9$

6, 8, 11, 10, 17, 2

---

6) $\mu = \frac{\Sigma xf}{\Sigma f} = \frac{12\times5+10\times3+15\times2+14\times6+8\times4}{20}$

or $= \frac{60+30+30+84+32}{20} = \frac{236}{20} \quad \frac{118}{10}$

$= 11.8$

b) $\mu = \frac{25\times 8 + 30\times 12 + 15\times 10 + 20\times 6 + 24\times 4}{40}$

$= \frac{200 + 360 + 150 + 120 + 96}{40} = 24.15$

---

7) Mode

12-2 4-1 9-2 10-1
8-4 1-1 11-1

a) 8

b) 17 count-3

a) 3 d) 1

```
import numpy as np
from scipy import stats
a = np.array([12,8,4,8,1,8,9,11,9,10..])
m = stats.mode(a)
print(m)
```

ModeResult(mode=array([8]),
count([4]))

8) $x + 7 = 25 \Leftrightarrow x = 18$

10) Mode when we want the data to be correct & match the mode.

a) Mean

b) Mean

c) Mode.

d) Mode.