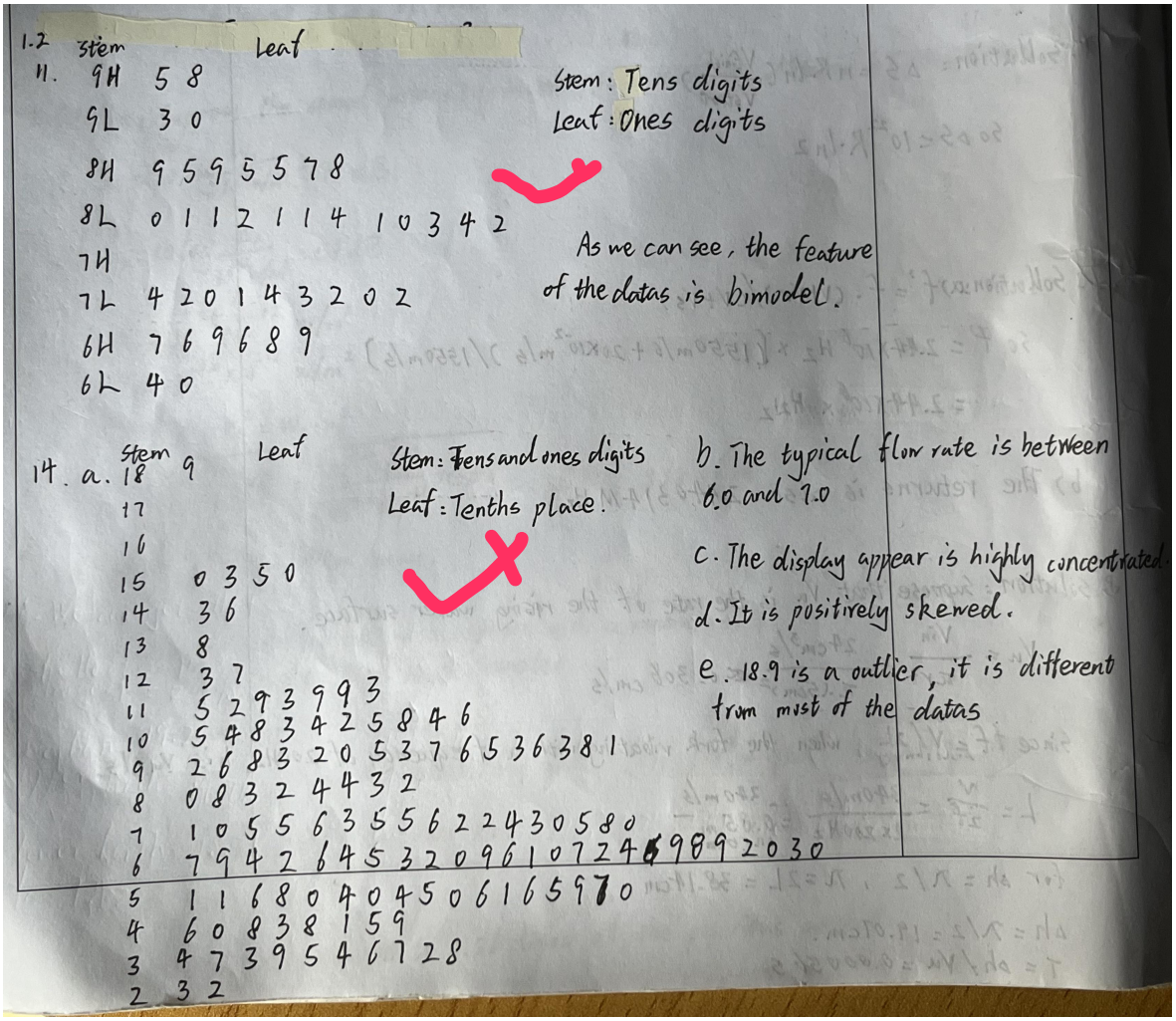


1.2

11.

Stem	Leaf
9H	5 8
9L	3 0
8H	9 5 9 5 5 7 8
8L	0 1 1 2 1 1 4 1 0 3 4 2
7H	
7L	4 2 0 1 4 3 2 0 2
6H	7 6 9 6 8 9
6L	4 0

Stem: Tens digits
Leaf: Ones digits

As we can see, the feature of the datas is bimodel.

14. a.

Stem	Leaf
18	9
17	
16	
15	0 3 5 0
14	3 6
13	8
12	3 7
11	5 2 9 3 9 9 3
10	5 4 8 3 4 2 5 8 4 6
9	2 6 8 3 2 0 5 3 7 6 5 3 6 3 8 1
8	0 8 3 2 4 4 3 2
7	1 0 5 5 6 3 5 5 6 2 2 4 3 0 5 8 0
6	7 9 4 2 6 4 5 3 2 0 9 6 1 0 7 2 4 6 9 8 9 2 0 3 0
5	1 1 6 8 0 4 0 4 5 0 6 1 6 5 9 7 0
4	6 0 8 3 8 1 5 9
3	4 7 3 9 5 4 6 7 2 8
2	3 2

Stem: Tens and ones digits
Leaf: Tenths place.

b. The typical flow rate is between 6.0 and 7.0

c. The display appear is highly concentrated.

d. It is positively skewed.

e. 18.9 is a outlier, it is different from most of the datas

月 周 日

20. a. Stem Leaf

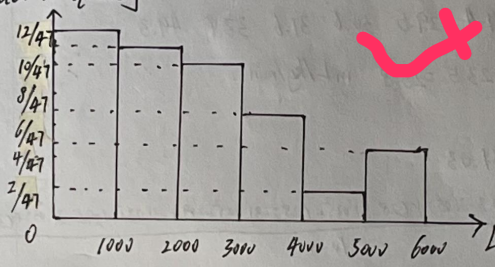
Stem: Thousands digits
Leaf: Hundreds digits

教师评语
学生反思

Stem	Leaf
5	320 700 220 850 770
4	390 770
3	060 330 380 350 870 150 150
2	100 400 120 250 320 400 460 700 730 109
1	280 240 050 000 320 250 120 850 620 890 419
0	360 340 960 530 540 960 450 500 100 510 240 396

The datas is positively skewed, most of the streets' length is under 1000.
And 5320, 5700, 5220, 5850, 5770 are outlying values.

b. We can get that. Frequency



Interval	number	frequence
0-1000	12	12/47
1000-2000	11	11/47
2000-3000	10	10/47
3000-4000	7	7/47
4000-5000	2	2/47
5000-6000	5	5/47

The shape of histogram is positively skewed.

13.34

a. $\bar{U} = \frac{\sum U_i}{N} = \frac{6.0+5.0+11.0+33.0+4.0+5.0+80.0+18.0+35.0+17.0+23.0}{11} \approx 21.5$

$\bar{F} = \frac{\sum F_i}{n} = \frac{4.0+14.0+11.0+9.0+9.0+8.0+4.0+20.0+5.0+8.9+21.0+9.2+3.0+2.0+0.3}{15} \approx 8.6$

$\bar{U} > \bar{F}$, The concentration in settled dust of urban homes is higher than that of farm homes.

b. We can find that $\tilde{U} = 17.0$, $\tilde{F} = 8.9$, and $\tilde{U} > \tilde{F}$

Because there is a data 80 is far from other datas.

c. After deleted the smallest and the largest, the percentages of urban homes is $\frac{1}{11} = 9.09\%$, that of farm homes is $\frac{1}{15} = 3.33\%$

Then, we get $\bar{U} = 17.0$, $\tilde{U} = 17.0$, $\bar{F} = 8.2$, $\tilde{F} = 8.9$

So $\bar{U} > \bar{F}$ and $\tilde{U} > \tilde{F}$

40. Since there are 50 datas.

So the sample median is 92,

the 25% trimmed mean is 95.4

the 10% trimmed mean is 102.2

the sample mean is 119.3

教师评语

学生反思

315
698
923
1285
2742
3963

1.4.44

a. After sorting the datas, we can see that

23.5 26.3 28.0 28.2 29.4 29.5 30.6 31.6 33.9 49.3

the sample range is 49.3 - 23.5 = 25.8 mg/min

b. since the sample mean is 31.03

$$s^2 = \frac{\sum (x_i - \bar{x})^2}{n-1} = \frac{(23.5-31.03)^2 + (26.3-31.03)^2 + (28-31.03)^2 + (28.2-31.03)^2 + (29.4-31.03)^2 + (29.5-31.03)^2 + (30.6-31.03)^2 + (31.6-31.03)^2 + (33.9-31.03)^2 + (49.3-31.03)^2}{10-1}$$

$$= \frac{56.7009 + 22.3729 + 9.1809 + 8.0089 + 2.6569 + 2.3409 + 0.1849 + 0.3249 + 8.2369 + 333.7929}{9}$$

$$= \frac{443.801}{9}$$

$$\approx 49.31$$

c. $s = \sqrt{s^2} = 7.02$

d. $s^2 = \frac{\sum x_i^2 - (\sum x_i)^2/n}{n-1} = \frac{(23.5^2 + 26.3^2 + 28^2 + 28.2^2 + 29.4^2 + 29.5^2 + 30.6^2 + 31.6^2 + 33.9^2 + 49.3^2) - 3103^2/10}{9}$

$$= \frac{(552.25 + 691.69 + 784 + 795.24 + 864.36 + 870.25 + 936.36 + 998.56 + 1149.21 + 2430.49) - 9628.609}{9}$$

$$= \frac{10072.41 - 9628.609}{9}$$

$$= 49.31$$

5b. We can get that

smallest = 15.3

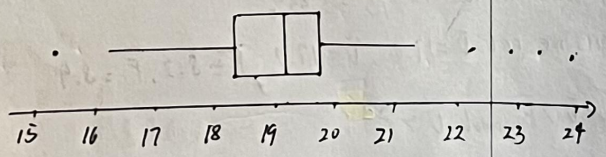
largest = 23.78

median = 19.2

upper forth = 19.76

lower forth = 18.34

fs = 1.42



15.3, 22.25, 22.75, 23.25, 23.78 are outlier.

B+