

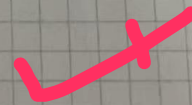
1.2

11. The data

stem	leaf
6L	4 3 0
6H	7 6 9 9 8 6
7L	0 0 1 2 2 2 4
8L	0 0 1 1 1 1 2 2 3 4 4
8H	5 5 5 7 8 9 9 9
9L	0 3
9H	5 8

stem: Tens digit
leaf: ones digit

feature: the quantity of the data
is increasing at first (to 80) and
then decrease.



124.

14.	stem	leaf	stem: tens digits ones digits	leaf: decimal digits
2	2	3		
3	2	3 4 4 5 7 7 8 9		
4	4	0 1 3 5 6 8 8 9		
5	5	0 0 0 0 1 1 1 4 4 5 5 6 6 6 7 8 9		
6	6	0 0 0 0 1 2 2 2 3 3 4 4 4 5 6 6 7 8 9 9 9 9		
7	7	0 0 0 1 2 2 3 3 4 5 5 5 5 6 6 8		
9	9	0 1 2 2 3 3 3 3 5 6 6 6 7		
10	10	2 3 4 4 4 5 5 6 8 8		
11	11	2 3 3 5 9 9 9		
12	12	3 7		
13	13	8		
14	14	3 6		

15	0 0 3 5
18	9

b. a typical number is 7.0 ✓

c. the display highly concentrated on 5-9

d. yes the data symmetric about 7

e. 18.9.

20.

Stem	leaf
0	100 240 340 560 396 450 500 510 530 540 960 960
1	000 050 120 240 280 320 419 670 850 890
2	100 120 250 320 400 460 700 730 109
3	060 100 150 350 350 380 870
4	390 770
5	320 320 700 770 850

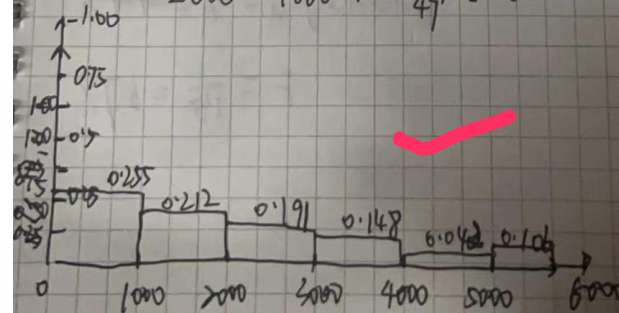
Stem: thousand
leaf: hundred, ten
one digits

The quantity of dates are decreasing while it get bigger

b.

less than 2000 : $\frac{25}{47} = 0.489$

2000 ~ 4000 : $\frac{17}{47} = 0.362$



34. U: mean = $\frac{21.55}{21.55}$

F: mean = $\frac{9.11}{9.11} 8.56$

U's mean > F's mean

b. U: median = 17.0

F: median = 8.9

because there are outlier data in U

c. U: trimmed mean = 17

F: trimmed mean = 8.24

Trimmed percentage $U = \frac{1}{11} = 9.1\%$

$F = \frac{1}{15} = 6.7\%$

40. median : 92

10% trimmed mean : 101.725

25% trimmed mean : 95.4

mean : 119.26

mean > 10% > 25%

44. a. The sample range : 25.8

b. $\bar{x} = 31.03$

$$s^2 = \frac{\sum (x_i - \bar{x})^2}{10-1=9} = 49.31$$

c. $s = 7.02$

$$\begin{aligned} d. \quad s_{xx} &= \sum x_i^2 - [\sum x_i]^2 / n \\ &= 10072.41 - \frac{(3103)^2}{10} = 49.31 \end{aligned}$$

$$s^2 = \frac{s_{xx}}{9} = 49.31$$

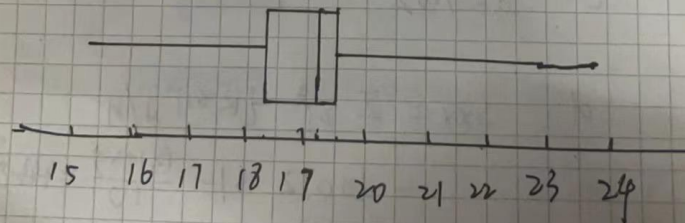
5b. a.

smallest $x_i = 15.3$ lower fourth: 18.34 $\bar{x} = 19.2$ upper fourth = 19.61 largest $x_i = 23.78$

b.

$$I_s = 19.61 - 18.34 = 1.27$$

$$I_s = 3.81$$

outlier: 23.78 

A