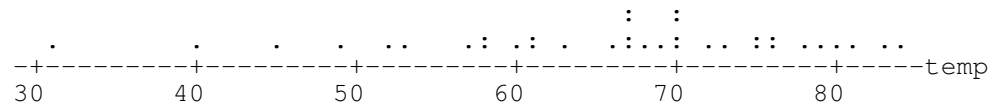


## CHAPTER 6

### Section 6-1

6-13. a)  $\bar{x} = 65.85 \text{ } ^\circ F$   
 $s = 12.16 \text{ } ^\circ F$

b) Dot Diagram



c) Removing the smallest observation (31), the sample mean and standard deviation become  
 $\bar{x} = 66.86 \text{ } ^\circ F$   
 $s = 10.74 \text{ } ^\circ F$

Section 6-3

6-27 a.) Stem-and-leaf display of Problem 6-27. Rating: unit = 0.10 1|2 represents 1.2

```

1  83|0
2  84|0
5  85|000
7  86|00
9  87|00
12 88|000
18 89|000000
(7) 90|0000000
15 91|0000000
8  92|0000
4  93|0
3  94|0
2  95|00
    
```

b.) Sample Mean

$$\bar{x} = \frac{\sum_{i=1}^n x_i}{n} = \frac{\sum_{i=1}^{40} x_i}{40} = \frac{3578}{40} = 89$$

Sample Standard Deviation

$$\sum_{i=1}^{40} x_i = 3578 \quad \text{and} \quad \sum_{i=1}^{40} x_i^2 = 320366$$

$$s^2 = \frac{\sum_{i=1}^n x_i^2 - \frac{\left(\sum_{i=1}^n x_i\right)^2}{n}}{n-1} = \frac{320366 - \frac{(3578)^2}{40}}{40-1} = \frac{313.9}{39}$$

$$= 8.05$$

and

$$s = \sqrt{8.05} = 2.8$$

Sample Median

Variable	N	Median
rating	40	90.000

c.) 22/40 or 55% of the taste testers considered this particular Pinot Noir truly exceptional.